TERMINAL SUPERINTENDENT

V. E. ANDERSON	Phoenix

TRAINMASTERS

P. W. DORNFELD	Yuma
B. B. KIMBALL	Tucson
W. G. CURRIER	Tucson
J. E. SCHWARTZ	Tucson
A. G. McMANUS	Phoenix

ASSISTANT TRAINMASTERS

J. H. VERMILLION	Gila
F. J. DEON	Gila
R. D. CHASTAIN	Phoenix
J. E. BUTLER, JR.	Phoenix

ROAD FOREMEN OF ENGINES

C. L. STRAHORN	Tucson
F. BELLMER	Tucson

ASSISTANT TRAINMASTER— DIVISION EXAMINER

B. M. BRAGDON	Tucson

CHIEF TRAIN DISPATCHER

H. W. CASSADY	Tucson

J. C. SLADE
Assistant Superintendent, Tucson

SOUTHERN PACIFIC COMPANY

TUCSON DIVISION TIMETABLE

118

CORRECTED TO AUGUST 15, 1947

EFFECTIVE SUNDAY, OCTOBER 6, 1946
AT 12:01 A. M.
MOUNTAIN STANDARD TIME

FOR THE GOVERNMENT AND INFORMATION
OF EMPLOYES ONLY

J. W. CORBETT,
General Manager.

R. E. HALLAWELL,
H. R. HUGHES,
Assistant General Managers.

G. C. BAKER,
General Superintendent of Transportation.

C. H. GRANT,
Superintendent of Transportation.

G. A. BAYS,
Superintendent.

HOSPITAL DEPARTMENT SURGEONS

LOCATION	NAME	TITLE
San Francisco	Dr. W. W. Washburn	Chief Surgeon
Yuma	Dr. C. S. Powell	District Physician and Surgeon
Yuma	Dr. W. C. Cain	Asst. Dist. Physician and Surgeon
Yuma	Dr. J. F. Stanley	Asst. Dist. Physician and Surgeon
Phoenix	Dr. H. D. Ketcherside	District Physician and Surgeon
Phoenix	Dr. J. E. Draine	Asst. Dist. Physician and Surgeon
Phoenix	Dr. Joseph Bank	Asst. Dist. Physician and Surgeon
Phoenix	Dr. Carlos C. Craig	Asst. Dist. Physician and Surgeon
Phoenix	Dr. Donald Polson	Asst. Dist. Physician and Surgeon
Phoenix	Dr. D. F. Harbridge	Oculist and Aurist
Phoenix	Dr. B. L. Melton	Aurist
Tempe	Dr. R. J. Stroud	District Physician and Surgeon
Tempe	Dr. M. W. Westervelt	Asst. Dist. Physician and Surgeon
Chandler	Dr. J. M. Meason	District Physician and Surgeon
Chandler	Dr. D. I. Arnow	Asst. Dist. Physician and Surgeon
Coolidge	Dr. G. H. Walker	Emergency Physician and Surgeon
Gilbert	Dr. L. M. Tompkins	Emergency Physician and Surgeon
Ray	Dr. O. E. Utzinger	District Physician and Surgeon
Hayden	Dr. C. D. Huestis	District Physician and Surgeon
Gila	Dr. V. J. Jeffery	District Physician and Surgeon
Casa Grande	Dr. J. E. Reddin	District Physician and Surgeon
Tucson	Dr. C. E. Flood	Division Physician and Surgeon
Tucson	Dr. N. K. Thomas	Thoracic Surgeon
Tucson	Dr. J. D. Francis	Orthopedic Surgeon
Tucson	Dr. R. W. Rudolph	Consulting Surgeon
Tucson	Dr. W. R. Manning	Consulting Surgeon
Tucson	Dr. J. B. Littlefield	Consulting Surgeon
Tucson	Dr. H. W. Kohl	Visiting Physician
Tucson	Dr. J. L. Koscinski	Attending Physician
Tucson	Dr. B. H. Morris	Attending Physician
Tucson	Dr. Delbert Hess	Attending Physician
Tucson	Dr. D. F. Hill	Consulting Physician
Tucson	Dr. W. R. Holbrook	Consulting Physician
Tucson	Dr. J. S. Mikell	Aurist
Tucson	Dr. T. H. Cates	Consulting Oculist
Nogales	Dr. J. S. Gonzalez	District Physician and Surgeon
Nogales	Dr. C. S. Smith	Oculist and Aurist
Benson	Dr. J. M. Hesser	District Physician and Surgeon
Willcox	Dr. J. E. Wilson	District Physician and Surgeon
Willcox	Dr. B. E. Briscoe	District Physician and Surgeon
Willcox	Dr. R. A. Hicks	Asst. Dist. Physician and Surgeon
Bowie	Dr. F. W. Parrish	District Physician and Surgeon
Lordsburg	Dr. C. D. Austin	District Physician and Surgeon
Safford	Dr. J. N. Stratton	District Physician and Surgeon
Safford	Dr. F. W. Butler	Asst. Dist. Physician and Surgeon
Globe	Dr. C Gunter	District Physician and Surgeon
Globe	Dr. W. M. O'Brien	Asst. Dist. Physician and Surgeon
Miami	Dr. C. M. Cron	District Physician and Surgeon
Miami	Dr. I. E. Harris	Asst. Dist. Physician and Surgeon

Note.—Emergency Surgeons should only be summoned for temporary treatment when prompt attention is required and when patients cannot be sent to or await arrival of Division or District Surgeon.

HOSPITALS

GENERAL HOSPITAL	SAN FRANCISCO, CALIF.
DIVISION—ST. JOSEPH'S HOSPITAL	PHOENIX, ARIZ.
DIVISION—ST. MARY'S HOSPITAL	TUCSON, ARIZ.
EMERGENCY HOSPITAL	TUCSON, ARIZ.
EMERGENCY HOSPITAL	GILA, ARIZ.

WELLTON SUBDIVISION

EASTWARD

Timetable No. 118

October 6, 1946

5/18/47 FIRST CLASS

Capacity of sidings in car lengths				2 Sunset Limited	40 Imperial	4 Golden State ~~Limited~~	370 A. O. N.	6 Argonaut	44 Californian	48 Mail and Express	Mile Post Location				STATIONS		Distance from Yuma
				Leave Daily	Leave Daily	Leave Daily	Leave Daily Ex.Sun.,Mon	Leave Daily	Leave Daily	Leave Daily							
Yuma yard	BKWOTYP			PM 7.45	PM 11.15	PM 6.10	AM 4.35	AM 4.25	AM 4.00	AM 2.50	732.7	Automatic Block System	TO-R		YUMA	D.T.	0.0
	P			7.55		6.20	4.47	**4.36**	4.10	3.01	737.4 737.5		TO-R	4.7	EAST YARD		4.7
62	P			7.59		6.24	4.51	4.40	4.14	3.05	740.1			2.6	ARABY		7.3
70	P			8.03		6.28	4.55	4.44	**4.18**	3.09	743.7			3.6	FORTUNA		10.9
62	P			8.07		6.32	5.01	4.48	4.22	3.13	746.6		TO	2.9	BLAISDELL		13.8
113	P			8.11		6.36	5.06	4.53	4.27	3.19	750.6			4.0	KINTER		17.8
M 76	P			8.16		6.41	5.11	4.59	4.32	f 3.26	753.5		TO	2.9	DOME	D.T.	20.7
68	WIP			8.35	AM 12.05	7.00	5.31	f 5.18 AM	4.51	f 3.51	770.0		TO	16.5	WELLTON		37.2
72	P			8.43		7.08	5.40		4.59	4.00	775.7			5.7	MING		42.9
73	P			8.49		7.14	5.48		5.05	f 4.08	780.9			5.2	ROLL		48.1
73	P			9.02		7.27	**6.07**		5.19	4.24	793.2		TO	12.3	GROWLER		60.4
76	P			9.13		7.38	6.19		5.29	4.34	802.5			9.3	KOFA		69.7
73	P			9.24		7.49	6.31		**5.44**	4.46	812.7			10.2	HORN		79.9
75	WOP			9.35	1.07	8.00	6.47		5.58	s 5.05	822.3		TO	9.6	HYDER		89.5
73	P			9.46		8.11	6.59		6.10	**5.22**	831.1			8.8	MONTEZUMA		98.3
76	WP			9.57		8.22	7.11		6.22	5.38	841.1			10.0	SADDLE		108.3
72	P			**10.13**		8.38	7.26		6.40	6.00	851.0			9.9	GILLESPIE		118.2
76	P			10.24		8.49	7.38		6.53	6.14	861.3			10.3	ARLINGTON		128.5
72	P			10.31		8.56	7.43		6.58	6.20	865.7			4.4	DIXIE		132.9
72	P			10.38		9.03	7.49		7.05	6.27	871.5			5.8	CONGER		138.7
76	WP			10.44	2.12	9.08	7.54		7.10	s 6.37	875.7		TO	4.2	BUCKEYE		142.9
72	P			10.51		**9.15**	8.01		7.17	6.45	881.7			6.0	LIBERTY		148.9
74	YP			11.01		9.26	8.09		7.25	f 6.56	889.7		TO	8.0	LITCHFIELD		156.9
100	P			11.05		9.30	8.15		7.29	f 7.00	893.0			3.3	CASHION		160.2
73	P			11.11		9.36	8.21		7.35	7.06	898.1			5.1	FOWLER		165.3
Phoenix yard 75	P			11.17		9.42	8.27		7.41	7.12	904.0			5.9	23rd AVE. PHOENIX		171.2
											905.5			1.5	Crossing—AT&SF Wye		172.7
	BKWP			s 11.25 PM	s 2.55 AM	s 9.50 PM			s 7.50 AM	s 7.20 AM	906.0		TO-R	0.5	PHOENIX	D.T.	173.2
	BKWOTYP						s 8.35 AM				907.0		TO-R	1.0	PHOENIX YARD		174.2
				Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily Ex.Sun.,Mon	Arrive Daily	Arrive Daily	Arrive Daily					(174.2)		
				(3.40) 47.23	(3.40) 47.23	(3.40) 47.23	(4.00) 43.55	(0.53) 42.11	(3.50) 45.18	(4.30) 38.49					..............Time over District.............. ....Average Speed per Hour.........		

RULE 5. Schedule time and train-order time for eastward trains at East Yard and Phoenix Yard apply at end of double track.

RULES 86 and 93. Second-class trains, extra trains and engines must be clear of main track and insulated joints at meeting and passing points for Nos. 1, 2, 3, 4, 39 and 40.

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE REVENUE PASSENGERS

Train	At	Receive To (or Beyond)	Discharge From (or Beyond)	Frequency
44	Hyder........ Buckeye....... Litchfield......	Tucson..........................	Yuma................	Daily
40	BUCKEYE	EL PASO	ALHAMBRA	"

No. 44 stop at Hyder Sunday to entrain M of W employes.

WELLTON SUBDIVISION

Timetable No. 118

October 6, 1946

WESTWARD

FIRST CLASS

Mile Post Location		STATIONS		Distance from Phoenix Yard	1 Sunset Limited	47 Mail and Express	39 Imperial	3 Golden State ~~Limited~~	5 Argonaut	43 Californian	47 EFFECTIVE 10-22-47
					Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	
732.7	TO-R	YUMA 4.7	D.T.	174.2	AM s 4.10	AM s 4.50	AM s 7.25	PM s 3.40	PM s 11.40	AM s 12.50	s 2^{00}A
737.4 737.5	TO-R	EAST YARD 2.6		169.5	3.58	**4.36**	7.14	3.29	11.29	12.39	
740.1		ARABY 3.6		166.9	3.53	4.25	7.09	3.24	11.24	12.33	
743.7		FORTUNA 2.9		163.3	3.49	**4.18**	7.05	3.20	11.20	12.29	
746.6	TO	BLAISDELL 4.0		160.4	3.45	4.11	7.02	3.16	11.16	12.25	
750.6		KINTER 2.9		156.4	3.40	4.06	6.57	3.11	11.10	12.20	
753.5	TO	DOME 16.5	D.T.	153.5	3.36	f 4.01	6.53	3.06	11.05	12.16 AM	F 1^{23}
770.0	TO	WELLTON 5.7		137.0	3.17	s 3.40	6.34	2.46	10.45 PM	11.56 PM	s 102
775.7		MING 5.2		131.3	3.10	3.31	6.27	2.39		11.49	
780.9		ROLL 12.3		126.1	3.04	f 3.24	6.21	2.32		f 11.43	F 12^{45}A
793.2	TO	GROWLER 9.3		113.8	2.50	3.08	**6.07**	2.18		11.29	
802.5		KOFA 10.2		104.5	2.39	2.57	5.56	2.07		11.19	
812.7		HORN 9.6		94.3	2.27	2.45	**5.44**	1.55		11.07	
822.3	TO	HYDER 8.8		84.7	2.15	s 2.33	5.32	1.43		f 10.55	s 11^{55}P
831.1		MONTEZUMA 10.0		75.9	2.02	2.15	**5.22**	1.32		10.40	
841.1		SADDLE 9.9		65.9	1.50	2.03	5.10	1.20		10.28	
851.0		GILLESPIE 10.3		56.0	1.38	1.50	4.57	1.07		**10.13**	
861.3		ARLINGTON 4.4		45.7	1.26	1.38	4.45	12.55		**10.01**	
865.7		DIXIE 5.8		41.3	1.21	1.33	4.40	12.50		9.40	
871.5		CONGER 4.2		35.5	1.14	1.26	4.33	12.43		9.33	
875.7	TO	BUCKEYE 6.0		31.3	1.09	s 1.20	4.28	12.38		f 9.26	s 10^{44}
881.7		LIBERTY 8.0		25.3	1.01	1.10	4.21	12.31		**9.15**	
889.7	TO	LITCHFIELD 3.3		17.3	12.51	s 1.00	4.11	12.21		f 8.58	s 10^{25}
893.0		CASHION 5.1		14.0	12.47	f 12.52	4.07	12.16		8.48	F 10^{07}
898.1		FOWLER 5.9		8.9	12.41	12.46	4.01	12.10		8.42	
904.0		23rd AVE. PHOENIX 1.5		3.0	12.35	12.40	3.55	12.04 PM		8.35	
905.5		Crossing—AT&SF Wye 0.5		1.5							
906.0	TO-R	PHOENIX 1.0	D.T.	1.0	12.30 AM	12.35 AM	3.50 AM	11.59 AM		8.30 PM	9^{50}P
907.0	TO-R	PHOENIX YARD		0.0							
		(174.2)			Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	
		Time over District Average Speed per Hour			(3.40) 47.23	(4.15) 40.75	(3.35) 48.33	(3.41) 47.02	(0.55) 40.58	(4.20) 39.92	

Automatic Block System

RULE 5. Schedule time and train-order time for eastward trains at East Yard and Phoenix Yard apply at end of double track.

RULES 86 and 93. Second-class trains, extra trains and engines must be clear of main track and insulated joints at meeting and passing points for Nos. 1, 2, 3, 4, 39 and 40.

No. 43 stop at Hyder and Wellton on Sunday to detrain M of W employes.

#39 STOP BUCKEYE DETRAIN FROM EL PASO
OR BEYOND.

WELLTON SUBDIVISION

EASTWARD

Timetable No. 118

October 6, 1946

Capacity of sidings in car lengths								SECOND CLASS				Mile Post Location				STATIONS		Distance from Yuma
								846 Freight	902 Freight	844 Freight	842 Freight							
								Leave Daily	Leave Daily	Leave Daily	Leave Daily							
Yuma yd.	BKWOTYP							PM 4.30	PM 2.00	AM 8.20	AM 1.10	732.7	Automatic Block System	TO-R		**YUMA**	D. T.	0.0
	P							4.45	2.15	8.35	1.25	737.4 737.5		TO-R	4.7	**EAST YARD**		4.7
62	P							4.50	2.20	8.40	1.30	740.1			2.6	**ARABY**		7.3
70	P							4.57	2.27	8.47	1.37	743.7			3.6	**FORTUNA**		10.9
62	P							5.02	2.32	8.52	1.42	746.6		TO	2.9	**BLAISDELL**		13.8
113	P							5.10	2.40	9.00	1.50	750.6			4.0	**KINTER**		17.8
M 76	P							5.16	2.46	9.06	1.56	753.5		TO	2.9	**DOME**	D. T.	20.7
68	WIP							5.45 PM	3.15	9.35 AM	2.25 AM	770.0		TO	16.5	**WELLTON**		37.2
72	P								3.30			775.7			5.7	**MING**		42.9
73	P								3.40			780.9			5.2	**ROLL**		48.1
73	P								4.00			793.2		TO	12.3	**GROWLER**		60.4
76	P								4.18			802.5			9.3	**KOFA**		69.7
73	P								4.38			812.7			10.2	**HORN**		79.9
75	WOP								5.12			822.3		TO	9.6	**HYDER**		89.5
73	P								5.28			831.1			8.8	**MONTEZUMA**		98.3
76	WP								5.45			841.1			10.0	**SADDLE**		108.3
72	P								6.20			851.0			9.9	**GILLESPIE**		118.2
76	P								6.37			861.3			10.3	**ARLINGTON**		128.5
72	P								6.45			865.7			4.4	**DIXIE**		132.9
72	P								7.03			871.5			5.8	**CONGER**		138.7
76	WP								7.10			875.7		TO	4.2	**BUCKEYE**		142.9
72	P								7.22			881.7			6.0	**LIBERTY**		148.9
74	YP								7.40			889.7		TO	8.0	**LITCHFIELD**		156.9
100	P								7.48			893.0			3.3	**CASHION**		160.2
73	P								7.56			898.1			5.1	**FOWLER**		165.3
Phoenix yard 75	P								8.06			904.0			5.9	**23rd AVE. PHOENIX**		171.2
												905.5			1.5	**Crossing—AT&SF Wye**		172.7
	BKWP											906.0		TO-R	0.5	**PHOENIX**	D. T.	173.2
	BKWOTYP								8.15 PM			907.0		TO-R	1.0	**PHOENIX YARD**		174.2
								Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily					(174.2)		
								(1.15) 29.76	(6.15) 27.87	(1.15) 29.76	(1.15) 29.76					........Time over District........ ....Average Speed per Hour........		

RULE 5. Schedule time and train-order time for eastward trains at East Yard and Phoenix Yard apply at end of double track.

RULES 86 and 93. Second-class trains, extra trains and engines must be clear of main track and insulated joints at meeting and passing points for Nos. 1, 2, 3, 4, 39 and 40.

ADDITIONAL STATIONS

NAME	Mile Post	Capacity
Granite Spur.... (Spur)	755.2	19
Ligurta.......... (Spur)	760.2	10
Tyson.......... (Spur)	788.3	31
Harqua.......... (Spur)	849.4	4
Crag.......... (Spur)	856.0	39
Hassayampa.... (Spur)	867.6	12
Palo Verde...... (Spur)	870.2	10
Norton..............	884.9	..
Tolleson..............	895.7	..
Campo..............	902.0	..

EAST-WARD ↓				Timetable No. 118 October 6, 1946 Litchfield Branch	WEST-WARD
Capacity of sidings in car lengths		Mile Post Location		STATIONS	Distance from Litchfield Park
74	YP	889.7	TO	**LITCHFIELD**	5.0
		894.7		5.0 **LITCHFIELD PARK**	↑ 0.0
				(5.0)	

WELLTON SUBDIVISION

Timetable No. 118

October 6, 1946

		EASTWARD									WESTWARD
		SECOND CLASS			FIRST CLASS						FIRST CLASS
Capacity of sidings in car lengths		846	844	842	6	Mile Post Location				Distance from Gila	5
		Freight	Freight	Freight	Argonaut						Argonaut
		Leave Daily	Leave Daily	Leave Daily	Leave Daily		Automatic Block System		STATIONS		Arrive Daily
68	WIP	PM 5.45	AM 9.35	AM 2.25	AM 5.18	770.0	TO		**WELLTON**	85.7	PM f 10.45
69	P	5.52	9.42	2.32	5.24	773.1		3.1	**ASHER**	82.6	10.40
63	P	5.57	9.47	2.37	5.28	776.4		3.3	**TACNA**	79.3	10.35
69	P	6.03	9.53	2.43	f 5.36	780.1		3.7	**GAEL**	75.6	f 10.30
63	P	6.10	10.00	2.50	5.42	783.8		3.7	**COLFRED**	71.9	10.23
67	P	6.18	10.08	2.58	5.48	788.6		4.8	**PEMBROKE**	67.1	10.17
W 79 E 67	P	6.28	10.18	3.08	f 5.58	792.6	TO	4.0	**MOHAWK**	63.1	f 10.11
63	P	6.36	10.26	3.16	6.05	795.9		3.3	**KIM**	59.8	10.02
64	P	6.43	10.33	3.23	6.10	800.5		4.6	**STOVAL**	55.2	9.56
94	P	6.52	10.42	3.32	f 6.18	806.2		5.7	**DATELAND**	49.5	f 9.49
W 127 E 63	WP	7.01	10.51	3.41	f 6.26	811.9	TO	5.7	**AZTEC**	43.8	f 9.40
94	P	7.08	10.58	3.48	6.31	815.8		3.9	**MUGGINS**	39.9	9.34
63	P	7.16	11.06	3.56	6.36	819.7		3.9	**STANWIX**	36.0	9.29
W 100 E 72	WOP	7.40	11.30	4.20	s 6.48	826.1	TO	6.4	**SENTINEL**	29.6	s 9.22
76	P	7.48	11.38	4.28	6.53	829.6		3.5	**TRIGO**	26.1	9.10
61	P	7.55	11.45	4.35	6.58	833.1		3.5	**TARTRON**	22.6	9.05
65	P	8.05	AM 11.55	4.45	7.06	839.9		6.8	**PIEDRA**	15.8	8.56
64	P	8.14	PM 12.04	4.54	7.12	845.5		5.6	**THEBA**	10.2	8.49
63	P	8.22	12.12	5.02	7.17	850.3		4.8	**SMURR**	5.4	8.43
Yard Limits	BKWOTYP	**8.35** PM	12.25 PM	5.15 AM	s 7.25 AM	855.7	TO-R	5.4	**GILA**	0.0	**8.35** PM
		Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily				(85.7)		Leave Daily
		(2.50) 30.25	(2.50) 30.25	(2.50) 30.25	(2.07) 40.49				Time over District Average Speed per Hour		(2.10) 39.55

YUMA VALLEY RAILROAD

Timetable No. 118

October 6, 1946

Capacity of sidings in car lengths		EAST-WARD ↓ Mile Post Location			STATIONS	WEST-WARD ↑ Distance from Gadsden
Yuma yard	P	0.0	TO-R		**YUMA**	21.0
20		1.0		1.0	**U.S.R.S.**	20.0
23		8.5		7.5	**WILLETTS**	12.5
25		15.0		6.5	**SOMERTON**	6.0
		21.0		6.0	**GADSDEN**	0.0
					(21.0)	

SPECIAL INSTRUCTIONS

Southern Pacific Company Rules and Regulations of the Transportation Department, Air Brake Rules, and Special Instructions in Tucson Division Timetable govern on YVRR.

Trains will not exceed speed 10 MPH except must not exceed 8 MPH over trestle at U.S.R.S.

Impaired side clearance at Spillway, MP 10.25.

At Yuma, normal position of junction switch will be for YVRR main track.

RULE 93: Yard limits are established at Yuma.

U.S.R.S. yard, Yuma, and Ludy Spur must not be used.

Track out service and must not be used east of MP 16 (Somerton).

ADDITIONAL STATIONS

NAME	Mile Post	Capacity
Ludy..........(Spur)	3.0	25
Spillway..........(Spur)	10.2	8

PICACHO SUBDIVISION

EASTWARD

5/19/47 **FIRST CLASS**

Timetable No. 118

October 6, 1946

Capacity of sidings in car lengths		2	40	4	370	44	6	48	Mile Post Location	Automatic Block System		STATIONS		Distance from Phoenix
		Sunset Limited	Imperial	Golden State ~~Limited~~	A. O. N.	Californian	Argonaut	Mail and Express						
		Leave Daily	Leave Daily	Leave Daily	Leave Daily Ex. Sun., Mon	Leave Daily	Leave Daily	Leave Daily						
Phoenix yard	BKWP	PM 11.40	AM 3.05	PM 10.05		AM 8.10		AM 7.50	906.0		TO-R	**PHOENIX**	D. T.	0.0
	BKWOTYP	11.45		10.08	AM 8.55	8.14		7.55	907.0		TO-R	1.0 **PHOENIX YARD**		1.0
	P	11.51		10.13	9.02	8.19		8.02	911.1			4.1 **KENDALL**		5.1
Yd. Lmts. 79	YP	PM **11.59**		10.18	9.08	f 8.27		f 8.13	914.4		TO	3.3 **TEMPE**		8.4
	P								915.3			0.9 **TEMPE JCT.**		9.3
	P								917.1			1.8 **NORMAL JCT.**		11.1
Yard Limits 78	WYP	AM f 12.17	3.29	10.30	9.20	f 8.40		s 8.31	921.8		TO	4.7 **MESA**		15.8
81	P	12.21		10.33	9.23	**8.43**		**8.43**	923.6			1.8 **McQUEEN**		17.6
80	P	12.30	3.40	**10.41**	9.31	f 8.51		s 8.56	929.3		TO	5.7 **CHANDLER**		23.3
76	P	12.36		10.47	9.37	8.59		9.05	934.3			5.0 **SERAPE**		28.3
67	P	12.41		10.52	9.42	9.04		9.11	939.0			4.7 **SANTAN**		33.0
67	P	12.46		10.57	9.47	9.09		9.17	943.2			4.2 **DOCK**		37.2
72	P	12.56		**11.08**	9.59	9.21		9.29	953.2			10.0 **BLACKWATER**		47.2
118	P	1.02		11.14	10.05	9.27		9.34	958.2			5.0 **POSTON**		52.2
73	WP	1.08		11.18	10.10	f 9.40		s 9.46	962.0	Automatic Block System	TO	3.8 **COOLIDGE**		56.0
32	P	1.13		11.23	**10.19**	9.45		f 9.52	966.4			4.4 **RANDOLPH**		60.4
67	P	1.19		11.28	10.28	9.50		**10.14**	971.4			5.0 **TOPAZ**		65.4
N 100 S 98	Yard Limits WOIYP	1.28	4.34	11.36	10.38	**10.05**	AM 9.43	10.24	979.7 936.7		TO	8.3 **PICACHO JCT.**		73.7
		1.30	4.36	11.38	10.40	10.08	9.45	f 10.26	937.7		TO	1.0 **PICACHO**		74.7
72	P	1.33		11.42	10.45	10.11	9.48	10.30	940.7			3.0 **OCATILLA**		77.7
90	P	1.37		11.45	10.49	10.14	**9.57**	10.34	944.2			3.5 **WYMOLA**		81.2
71	P	**1.43**							947.9			3.7 **MONTROSE**		84.9
W 84 E 87	WP	1.46		11.52	10.56	10.21	10.06	10.41	951.4		TO	3.5 **RED ROCK**		88.4
67	P								954.3			2.9 **AVRA**		91.3
174	P	1.53		PM 11.58	11.03	10.28	10.13	10.48	958.4			4.1 **NAVISKA**		95.4
69	P	1.57		AM 12.02	11.07	10.32	10.17	10.52	962.2			3.8 **MARANA**		99.2
94	P								964.6			2.4 **PAPAGO**		101.6
164	WP	**2.01**		12.06	11.12	10.37	10.21	10.56	966.9		TO	2.3 **RILLITO**		103.9
93	P								969.9			3.0 **SABINO**		106.9
83	P	2.06		12.11	11.18	10.42	10.26	11.01	972.1			2.2 **CORTARO**		109.1
93	P								974.7			2.6 **KINO**		111.7
W 83 E 88	P	2.11		12.16	11.23	10.47	10.31	11.06	977.4			2.7 **JAYNES**		114.4
	P	2.15		12.20	11.28	10.51	10.35	11.10	981.2		TO	3.8 **STOCKHAM**	D. T.	118.2
Tucson yard	BKWCOITYP	s 2.25 AM	s 5.30 AM	s 12.30 AM	s 11.40 AM	s 11.00 AM	s 10.45 AM	s 11.20 AM	983.9		TO-R	2.7 **TUCSON**		120.9
		Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily Ex. Sun., Mon	Arrive Daily	Arrive Daily	Arrive Daily				(120.9)		
		(2.45) 43.95	(2.25) 50.03	(2.25) 50.03	(2.45) 43.92	(2.50) 42.67	(1.02) 44.90	(3.30) 34.54				......Time over District...... ......Average Speed per Hour......		

RULE 5. Schedule time and train-order time for eastward trains at Phoenix Yard, and for westward trains at Stockham apply at end of double track.

Second main track between east end Phoenix Yard and Kendall, may be used by freight trains when authorized by train order. Single track rules apply.

RULE S-72. Exceptions: Nos. 4, 40 and 2 are superior to Nos. 43, 5, 47 and 1.

RULES 86 and 93. Second-class trains, extra trains and engines must be clear of main track and insulated joints at meeting and passing points for Nos. 1, 2, 3, 4, 39 and 40.

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE REVENUE PASSENGERS				
Train	At	Receive To (or Beyond)	Discharge From (or Beyond)	Frequency
4	Chandler....................	El Paso............	PALM SPRINGS	Daily
2	Chandler....................	El Paso............	....	Daily
40	Chandler....................	El Paso............	....	Daily
40	MESA-COOLIDGE	EL PASO	ALHAMBRA	

PICACHO SUBDIVISION

WESTWARD

FIRST CLASS

Mile Post Location	Automatic Block System	Timetable No. 118 October 6, 1946 STATIONS		Distance from Tucson	39 Imperial	3 Golden State ~~Limited~~	43 Californian	5 Argonaut	47 Mail and Express	1 Sunset Limited	47 EFFECTIVE 10-22-47
					Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	
906.0	TO-R	**PHOENIX** 1.0	D.T.	120.9	AM s 3.35	AM s 11.45	PM s 8.00		PM s 11.55	AM s 12.15	s 930p
907.0	TO-R	**PHOENIX YARD** 4.1		119.9	3.29	11.40	**7.55**		11.42	12.11	
911.1		**KENDALL** 3.3		115.8	3.23	11.35	7.49		11.35	12.05 AM	
914.4	TO	**TEMPE** 0.9		112.5	3.18	11.30	f 7.42		s **11.28**	**11.59** PM	s 910
915.3		**TEMPE JCT.** 1.8		111.6							
917.1		**NORMAL JCT.** 4.7		109.8							
921.8	TO	**MESA** 1.8		105.1	3.05	11.17	f 7.25		s 11.05	f 11.47	s 855
923.6		**McQUEEN** 5.7		103.3	3.02	11.14	7.15		10.52	**11.43**	
929.3	TO	**CHANDLER** 5.0		97.6	2.54	11.05	f 7.05		s **10.41**	11.36	s 835
934.3		**SERAPE** 4.7		92.6	2.46	10.57	6.53		10.33	11.30	
939.0		**SANTAN** 4.2		87.9	2.41	10.52	6.48		10.28	11.25	
943.2		**DOCK** 10.0		83.7	2.36	10.47	6.43		10.23	11.20	
953.2		**BLACKWATER** 5.0		73.7	2.24	10.35	6.31		10.11	**11.08**	
958.2		**POSTON** 3.8		68.7	**2.18**	10.29	6.25		10.05	10.52	
962.0	TO	**COOLIDGE** 4.4		64.9	2.14	10.24	s 6.20		s 10.00	10.48	s 755
966.4		**RANDOLPH** 5.0		60.5	2.09	**10.19**	6.09		f 9.49	10.43	F 748
971.4		**TOPAZ** 8.3		55.5	2.04	**10.14**	6.04		9.44	10.38	
979.7 936.7	TO	**PICACHO JCT.** 1.0		47.2	1.55	**10.05**	5.56	PM 6.15	9.36	10.30	
937.7	TO	**PICACHO** 3.0		46.2	1.53	10.03	5.54		f 9.34	10.28	F 733
940.7		**OCATILLA** 3.5		43.2	1.50	10.00	5.51	6.08	9.31	10.25	
944.2		**WYMOLA** 3.7		39.7	1.47	**9.57**	5.48	6.05	9.28	10.22	
947.9		**MONTROSE** 3.5		36.0	**1.43**						
951.4	TO	**RED ROCK** 2.9		32.5	1.40	9.50	5.41	5.58	9.21	10.15	
954.3		**AVRA** 4.1		29.6	**1.37**						
958.4		**NAVISKA** 3.8		25.5		9.44	5.34	5.51	9.14	10.08	
962.2		**MARANA** 2.4		21.7	1.30	9.40	5.30	5.47	9.10	10.04	
964.6		**PAPAGO** 2.3		19.3							
966.9	TO	**RILLITO** 3.0		17.0	1.26	9.36	5.26	5.42	9.06	10.00	
969.9		**SABINO** 2.2		14.0							
972.1		**CORTARO** 2.6		11.8	**1.21**	9.31	**5.21**	5.37	9.01	9.56	
974.7		**KINO** 2.7		9.2							
977.4		**JAYNES** 3.8		6.5	1.17	9.27	5.17	**5.32**	8.57	9.52	
981.2	TO	**STOCKHAM** 2.7	D.T.	2.7	1.13	**9.23**	5.13	5.28	8.53	9.48	
983.9	TO-R	**TUCSON**		0.0	1.05 AM	9.15 AM	5.05 PM	5.20 PM	8.45 PM	9.40 PM	645p
		(120.9)			Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	
		Time over District Average Speed per Hour			(2.30) 48.36	(2.30) 48.36	(2.55) 41.45	(0.55) 51.49	(3.10) 38.18	(2.35) 46.80	

RULE 5. Schedule time and train-order time for eastward trains at Phoenix Yard, and for westward trains at Stockham apply at end of double track.

Second main track between east end Phoenix Yard and Kendall, may be used by freight trains when authorized by train order. Single track rules apply.

RULE S-72. Exceptions: Nos. 4, 40 and 2 are superior to Nos. 43, 5, 47 and 1.

RULES 86 and 93. Second-class trains, extra trains and engines must be clear of main track and insulated joints at meeting and passing points for Nos. 1, 2, 3, 4, 39 and 40.

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE REVENUE PASSENGERS

Train	At	Receive To (or Beyond)	Discharge From (or Beyond)	Frequency
3	Chandler	PALM SPRINGS	El Paso	Daily
1	Chandler		El Paso	Daily
39	Chandler: MESA-COOLIDGE		El Paso	Daily

No. 5 stop on flag at Picacho for Gila line and Los Angeles passengers.

PICACHO SUBDIVISION

EASTWARD

SECOND CLASS

Timetable No. 118
October 6, 1946

Capacity of sidings in car lengths					854 Freight Leave Daily	852 Freight Leave Daily	904 Freight Leave Daily	856 Freight Leave Daily	Mile Post Location			STATIONS		Distance from Phoenix
Phoenix yard BKWP									906.0	Automatic Block System	TO-R	PHOENIX	D.T.	0.0
BKWOTYP							AM 12.15		907.0		TO-R	1.0 PHOENIX YARD		1.0
P							12.25		911.1			4.1 KENDALL		5.1
Yd. Lmts. 79 YP							12.35		914.4		TO	3.3 TEMPE		8.4
P									915.3			0.9 TEMPE JCT.		9.3
P									917.1			1.8 NORMAL JCT.		11.1
Yard Limits 78 WYP							1.05		921.8		TO	4.7 MESA		15.8
81 P							1.15		923.6			1.8 McQUEEN		17.6
80 P							1.25		929.3		TO	5.7 CHANDLER		23.3
76 P							1.33		934.3			5.0 SERAPE		28.3
67 P							1.41		939.0			4.7 SANTAN		33.0
67 P							1.49		943.2			4.2 DOCK		37.2
72 P							2.08		953.2			10.0 BLACKWATER		47.2
118 P							2.18		958.2			5.0 POSTON		52.2
73 WP							2.30		962.0		TO	3.8 COOLIDGE		56.0
32 P									966.4			4.4 RANDOLPH		60.4
67 P							2.50		971.4			5.0 TOPAZ		65.4
N 100 S 98 Yard Limits WOIYP					PM 4.02	AM 7.52	3.10	AM 12.52	979.7 936.7		TO	8.3 PICACHO JCT.		73.7
					4.15	8.05	3.15	1.05	937.7		TO	1.0 PICACHO		74.7
72 P					4.21	8.11	3.20	1.11	940.7			3.0 OCATILLA		77.7
90 P					4.27	8.17	3.25	1.17	944.2			3.5 WYMOLA		81.2
71 P					4.33	8.23	3.31	1.23	947.9			3.7 MONTROSE		84.9
W 84 E 87 WP					4.39	8.29	3.37	1.29	951.4		TO	3.5 RED ROCK		88.4
67 P					4.44	8.34	3.42	**1.37**	954.3			2.9 AVRA		91.3
174 P					4.50	8.40	3.49	1.43	958.4			4.1 NAVISKA		95.4
69 P					4.57	8.47	3.55	1.50	962.2			3.8 MARANA		99.2
94 P					5.02	8.52	4.00	1.55	964.6			2.4 PAPAGO		101.6
164 WP					5.07	8.57	4.05	**2.01**	966.9		TO	2.3 RILLITO		103.9
93 P					5.12	9.02	4.11	2.06	969.9			3.0 SABINO		106.9
83 P					**5.21**	9.07	4.15	2.11	972.1			2.2 CORTARO		109.1
93 P					5.26	9.12	4.20	2.16	974.7			2.6 KINO		111.7
W 83 E 88 P					**5.32**	9.17	4.25	2.21	977.4			2.7 JAYNES		114.4
P					5.38	**9.23**	4.30	2.27	981.2		TO	3.8 STOCKHAM	D.T.	118.2
Tucson yard BKWCOITYP					5.50 PM	9.35 AM	4.40 AM	2.40 AM	983.9		TO-R	2.7 TUCSON		120.9
					Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily				(120.9)		
					(1.48) 26.21	(1.43) 27.68	(4.25) 27.51	(1.48) 26.21				Time over District Average Speed per Hour		

RULE 5. Schedule time and train-order time for eastward trains at Phoenix Yard, and for westward trains at Stockham apply at end of double track.

Second main track between east end Phoenix Yard and Kendall, may be used by freight trains when authorized by train order. Single track rules apply.

RULES 86 and 93. Second-class trains, extra trains and engines must be clear of main track and insulated joints at meeting and passing points for Nos. 1, 2, 3, 4, 39 and 40.

ADDITIONAL STATIONS

NAME	Mile Post	Capacity
Tovrea................	911.8	..
Yeso...........(Spur)	912.9	5
Tremaine............	925.4	22
Falfa..................	926.1	40
Pozo...........(Spur)	931.0	31
Olberg.........(Spur)	948.1	14
Peak..................	975.2	..

ARISTUC (SPUR) 909.5 (est 12-5-47

PICACHO SUBDIVISION

EASTWARD — **WESTWARD**

Timetable No. 118

October 6, 1946

Capacity of sidings in car lengths		856	854	852	6	Mile Post Location		STATIONS	Distance from Picacho	5
		SECOND CLASS			FIRST CLASS					FIRST CLASS
		Freight	Freight	Freight	Argonaut					Argonaut
		Leave Daily	Leave Daily	Leave Daily	Leave Daily					Arrive Daily
Yard Limits	BKWOTYP	PM 10.00	PM 1.10	AM 5.00	AM 7.35	855.7	Automatic Block System TO-R	**GILA**	81.0	PM s 8.25
62	P	10.10	1.20	5.10	7.42	859.1		3.4 **COLEDON**	77.6	8.19
74	P	10.25	1.35	5.25	7.50	865.1		6.0 **BOSQUE**	71.6	8.11
62	P	10.32	1.42	5.32	7.55	869.1		4.0 **OCAPOS**	67.6	8.05
73	P	10.42	1.52	5.42	8.00	871.8		2.7 **SHAWMUT**	64.9	8.01
72	YP	10.55	2.05	5.55	f 8.07	874.6	TO	2.8 **ESTRELLA**	62.1	f 7.56
64	P	11.05	2.15	6.05	8.12	879.4		4.8 **BUCHAN**	57.3	7.50
63	P	11.12	2.22	6.12	f 8.17	883.7		4.3 **MOBILE**	53.0	f 7.44
62	P	11.20	2.30	6.20	8.23	888.4		4.7 **ENID**	48.3	7.36
63	P	11.28	2.38	6.28	8.29	892.8		4.4 **HEATON**	43.9	7.30
N 110 S 146	WP	11.45	2.55	6.45	s 8.40	897.8	TO	5.0 **MARICOPA**	38.9	s 7.22
61	P	PM 11.55	3.05	6.55	8.47	902.9		5.1 **LIRIM**	33.8	7.10
70	P	AM 12.05	3.15	7.05	8.52	907.7		4.8 **BON**	29.0	7.05
63	P	12.13	3.23	7.13	8.57	912.5		4.8 **NUNEZ**	24.2	7.00
88	Yard Limits WP	12.25	3.35	7.25	s 9.10	918.8	TO	6.3 **CASA GRANDE**	17.9	s 6.50
61	P	12.33	3.43	7.33	9.16	923.7		4.9 **ARIZOLA**	13.0	6.38
63	P	12.40	3.50	7.40	9.21	928.4		4.7 **TOLTEC**	8.3	6.32
74	P	12.47	3.57	7.47	s 9.35	933.1	TO	4.7 **ELOY**	3.6	s 6.25
N 100 S 98	Yard Limits WOIYP	12.52 AM	4.02 PM	7.52 AM	9.43 AM	936.7	TO	3.6 **PICACHO JCT.**	0.0	6.15 PM
		Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily			(81.0)		Leave Daily
		(2.52) 28.25	(2.52) 28.25	(2.52) 28.25	(2.08) 37.96			........Time over District........ ....Average Speed per Hour........		(2.10) 37.38

ADDITIONAL STATIONS

NAME	Mile Post	Capacity
Seco............(Spur)	921.0	13

ADDITIONAL FLAG STOPS TO RECEIVE OR DISCHARGE REVENUE PASSENGERS

Train	At	Receive To (or Beyond)	Discharge From (or Beyond)	Frequency
6	Toltec............................	Tucson..........	Yuma..........	Daily
5	Toltec............................	Yuma.............	Tucson........	Daily

PICACHO SUBDIVISION

EASTWARD ↓ — Timetable No. 118 — WESTWARD ↑

October 6, 1946

Christmas Branch

Capacity of sidings in car lengths		Mile Post Location		STATIONS	Distance from Christmas
81	P	923.6		McQUEEN	86.9
				3.4	
72	P	927.0	TO	GILBERT	83.5
				5.0	
		932.0		HIGLEY	78.5
				3.6	
		935.6		GERMANN	74.9
				2.5	
	P	938.1		RITTENHOUSE	72.4
				3.5	
	P	941.6		QUEEN CREEK	68.9
				8.2	
	P	949.8		MAGMA	60.7
				9.2	
27	WP	959.0	TO	FLORENCE	51.5
				10.0	
	P	969.0		PRICE	41.5
				6.2	
	P	975.2		COCHRAN	35.3
				7.9	
	P	983.1		ZELLWEGER	27.4
				4.7	
Yard Limits	P	987.8	TO-R	RAY JCT.	22.7
				7.1	
		994.9		BRANAMAN	15.6
				4.8	
Yard Limits	Y	999.7		BURNS	10.8
				0.5	
	BKWOYP	1000.2	TO-R	HAYDEN JCT.	10.3
				1.9	
	P	1002.1	TO	HAYDEN	8.4
				8.4	
		1010.5		CHRISTMAS	0.0
				(86.9)	

At Hayden Jct. when train-order office is open, signal governs movement of trains and engines between Christmas Branch junction switch (1584 feet east of Hayden Jct.) and Hayden Jct. train-order office. Movements between these points are authorized by signal being placed in proceed position after being called for by one long, one short and one long sound of whistle. When train-order office is closed, movements may be made between these points "With Caution" if intervening track is seen to be clear.

Normal position Christmas Branch junction switch is for Kennecott Copper Corporation Railroad. Westward trains and engines via Kennecott Copper Corporation Railroad and via Christmas Branch must stop to clear Christmas Branch junction switch before proceeding as authorized above.

Kennecott Copper Corp'n R. R. between Hayden Jct. and Hayden Mills is operated by the Tucson Division.

Speed of trains must not exceed 15 MPH.

Grade Hayden Mills to Hayden Jct. 2.2%.

Impaired overhead and side clearance at Hayden Mills Smelter.

Loaded cars not permitted on open deck of trestle beyond ore bins at Hayden Mills.

RULE 99 must be complied with between Christmas Branch junction switch and Ray Consolidated derail on Kennecott Copper Corporation Railroad.

Between Price and Christmas: Look out for rocks and landslides.

ADDITIONAL STATIONS		
NAME	Mile Post	Capacity
Wooley.........(Spur)	984.6	5
Winkelman.....(Spur)	1003.5	8

EASTWARD ↓ — Timetable No. 118 — WESTWARD ↑

October 6, 1946

Creamery Branch

Capacity of sidings in car lengths			Mile Post Location		STATIONS	Distance from Normal Jct.
Yd. Lmts.	79	WYP	914.4	TO	TEMPE	2.1
					1.0	
			915.4		CREAMERY	1.1
					1.1	
			916.5		NORMAL JCT.	0.0
					(2.1)	

EASTWARD ↓ — Timetable No. 118 — WESTWARD ↑

October 6, 1946

Tempe Branch

Capacity of sidings in car lengths		Mile Post Location	STATIONS	Distance from West Chandler
Yard Limits	P	915.3	TEMPE JCT.	7.7
			2.4	
		917.7	PETERSON	5.3
			2.4	
		920.1	HELENA	2.9
			2.9	
		923.0	WEST CHANDLER	0.0
			(7.7)	

EASTWARD

WESTWARD

Timetable No. 118

October 6, 1946

Nogales Branch

Capacity of sidings in car lengths		FIRST CLASS 378 Mexican Express Leave Daily Ex. Sunday	Mile Post Location		STATIONS	Distance from Nogales	FIRST CLASS 379 Mexican Express Arrive Daily Ex. Sunday
Tucson yard BKWCOITYP		AM 11.05	983.9	TO-R	**TUCSON** | TO-R **TUCSON**	65.9	PM s 4.50
					Via **SHOP YARD** | 0.8 **T&NRR JCT.**	65.1	
24			991.6		6.9 **CONSAIR**	58.2	
55	P	11.27	993.8		2.2 **XAVIER**	56.0	4.28
62	P	AM f 11.42	1002.4	TO	8.6 **SAHUARITA**	47.4	f 4.13
56	P	PM 12.06	1016.3		13.9 **CANOA**	33.5	3.49
57	WP	s 12.16	1021.1	TO	4.8 **AMADO**	28.7	s 3.40
56	P	12.24	1025.6		4.5 **CHAVEZ**	24.2	3.31
57	P	f 12.29	1034.2		8.6 **OTERO**	15.6	f 3.16
Nogales yard BKWOTP		s 1.10 PM	1049.8	TO-R	15.6 **NOGALES**	0.0	2.45 PM
		Arrive Daily Ex. Sunday			(65.9)		Leave Daily Ex. Sunday
		(2.05) 31.44			Time over District Average Speed per Hour		(2.05) 31.44

No. 378 stop on flag at Continental, at MP 1028.1 and Calabasas.
No. 379 stop daily at MP 1028.1, and stop on flag at Calabasas and Continental.
Rule S-72 Exception, No. 378 is superior to No. 379.
Passenger trains use shop yard route, Tucson yard.
Freight trains use T&NRR Jct. route, Tucson yard.

ADDITIONAL STATIONS

NAME	Mile Post	Capacity
Continental.....(Spur)	1010.4	12
Morales.........(Spur)	1012.1	18
Tubac...........(Spur)	1029.7	2
Silva................	1037.3	15
Calabasas.......(Spur)	1039.8	55Y

BOWIE SUBDIVISION

EASTWARD

Timetable No. 118

October 6, 1946

8/16/47 FIRST CLASS 5/19/47

Capacity of sidings in car lengths		48 Mail and Express	44 Californian	6 Argonaut	2 Sunset Limited	40 Imperial	4 Golden State ~~Limited~~	Mile Post Location		STATIONS	Distance from Tucson
		Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily				
Tucson yard	BKWCOITYP	AM 11.40	AM 11.15	AM 11.05	AM 2.40	AM 5.40	AM 12.40	983.9	TO-R	TUCSON	0.0
63	P		11.32	11.24	2.56		12.55	993.8		9.9 RANKIN	9.9
63	P	PM 12.08	AM 11.44	11.38	3.07		1.06	1003.3		9.5 VAIL	19.4
79	WP	12.30	PM 12.05	AM 11.58	3.24		1.13	1012.6		9.3 PANTANO	28.7
N 94 S 85 Yard Limits	CIYP	12.50 PM	12.25 PM	PM 12.20	3.45	6.40 AM	1.40 AM	1023.6	TO-R	11.0 MESCAL	39.7
77	P			12.26	3.51			1028.2		4.6 CHAMISO	44.3
E118 Yard Limits W70	BKWOP			s 12.40	s 4.06			1032.5 1032.6	TO	4.3 BENSON	48.6
62	P			12.48	4.13			1035.8		3.2 FENNER	51.8
83	P			12.55	4.19			1038.5		2.7 CURVO	54.5
75	WP			1.02	4.26			1040.8	TO	2.3 SIBYL	56.8
100	P			1.08	4.31			1043.9 1044.5		3.1 TULLY	59.9
63	P			1.13	4.36			1047.3		2.8 OCHOA	62.7
65	P			1.21	4.43			1050.8		3.5 LANCHA	66.2
E65 W65	YP			s 1.30	4.49			1053.9	TO	3.1 DRAGOON	69.3
81	P			1.36	4.55			1058.3		4.4 MANZORO	73.7
90	P			f 1.44	5.00			1063.9	TO	5.6 COCHISE	79.3
64	P			1.50	5.05			1069.6		5.7 HADO	85.0
68	WP			s 2.00	5.12			1074.7	TO	5.1 WILLCOX	90.1
61	P			2.05	5.17			1079.4		4.7 DRURY	94.8
99	P			2.11	5.21			1082.6		3.2 RASO	98.0
64	P			2.16	5.26			1087.7		5.1 ALRICH	103.1
64	P			2.20	5.30			1091.0		3.3 LUZENA	106.4
63	P			2.25	5.35			1094.5		3.5 CHOLLA	109.9
E110 Yard Limits W113	BKWCOYP			s 2.40	s 5.45			1098.4	TO-R	3.9 BOWIE	113.8
64	P			2.46	5.51			1102.6		4.2 HOLT	118.0
63	P			2.50	5.55			1106.6		4.0 OLGA	122.0
63	P			2.54	5.59			1110.2		3.6 KARRO	125.6
63	BKWCOYP			s 2.58	6.03			1114.2	TO	4.0 SAN SIMON	129.6
64	P			3.06	6.08			1117.6		3.4 BAWTRY	133.0
74	P			3.14	6.15			1121.8		4.2 VANAR	137.2
70	P			3.21	6.21			1125.0		3.2 CAVOT	140.4
E66 W69	YP			f 3.31	6.29			1128.9	TO	3.9 STEINS	144.3
62	P			3.37	6.34			1132.7		3.8 MONDEL	148.1
63	P			3.41	6.38			1136.5		3.8 CONRAD	151.9
62	P			3.48	6.42			1140.8		4.3 GARY	156.2
63	P			3.55	6.47			1143.9		3.1 PYRA	159.3
Yard Limits	BKWCOYP			s 4.05 PM	s 6.55 AM			1148.3	TO-R	4.4 LORDSBURG	163.7
		Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily			(163.7)	
		(1.15) 29.17	(1.10) 34.00	(5.00) 32.74	(4.15) 38.52	(1.00) 36.66	(1.00) 36.66			Time over District Average Speed per Hour	

No. 2 Track (Tucson to Mescal)

Automatic Block System (Mescal to Lordsburg)

RULES 86 and 93. Second-class trains, extra trains and engines must be clear of main track and insulated joints at meeting and passing points for Nos. 1, 2, 4 and 40.

Westward trains will use No. 1 Track, Rio Grande Division, Mescal to Tucson, and eastward trains will use No. 2 Track, Tucson Division, Tucson to Mescal, under double track rules.

#2 STOP WILLCOX ENTRAIN REV. PASSGRS. FOR EL PASO AND BEYOND.

WESTWARD

FIRST CLASS

Timetable No. 118

October 6, 1946

Mile Post Location			STATIONS	Distance from Lordsburg	43 Californian	1 Sunset Limited
					Arrive Daily	Arrive Daily
983.9	Automatic Block System No. 2 Track	TO-R	TUCSON 9.9		Be Governed by Current Timetable and Bulletins of Rio Grande Division.	
993.8			RANKIN 9.5			
1003.3			VAIL 9.3			
1012.6			PANTANO 11.0			
1023.6		TO-R	MESCAL 4.6	124.0	PM 3.45	PM **8.35**
1028.2			CHAMISO 4.3	119.4	3.35	8.25
1032.5 1032.6		TO	BENSON 3.2	115.1	s 3.25	s 8.15
1035.8			FENNER 2.7	111.9	3.11	8.04
1038.5			CURVO 2.3	109.2	3.07	8.00
1040.8		TO	SIBYL 3.1	106.9	3.02	7.56
1043.9 1044.5			TULLY 2.8	103.8	2.57	7.52
1047.3			OCHOA 3.5	101.0	**2.53**	7.48
1050.8			LANCHA 3.1	97.5	2.48	7.43
1053.9		TO	DRAGOON 4.4	94.4	f 2.43	7.39
1058.3			MANZORO 5.6	90.0	2.35	7.33
1063.9		TO	COCHISE 5.7	84.4	f 2.28	7.27
1069.6			HADO 5.1	78.7	2.20	7.21
1074.7		TO	WILLCOX 4.7	73.6	s 2.13	7.15
1079.4			DRURY 3.2	68.9	**2.05**	7.10
1082.6			RASO 5.1	65.7	1.58	7.05
1087.7			ALRICH 3.3	60.6	1.50	6.58
1091.0			LUZENA 3.5	57.3	1.44	6.54
1094.5			CHOLLA 3.9	53.8	1.40	6.50
1098.4		TO-R	BOWIE 4.2	49.9	s 1.35	s 6.44
1102.6			HOLT 4.0	45.7	1.21	6.34
1106.6			OLGA 3.6	41.7	1.17	6.30
1110.2			KARRO 4.0	38.1	1.13	6.26
1114.2		TO	SAN SIMON 3.4	34.1	f 1.08	6.22
1117.6			BAWTRY 4.2	30.7	1.01	6.18
1121.8			VANAR 3.2	26.5	12.56	6.13
1125.0			CAVOT 3.9	23.3	12.50	6.09
1128.9		TO	STEINS 3.8	19.4	f 12.42	**6.02**
1132.7			MONDEL 3.8	15.6	12.35	5.57
1136.5			CONRAD 4.3	11.8	12.30	5.52
1140.8			GARY 3.1	7.5	12.24	5.47
1143.9			PYRA 4.4	4.4	12.17	5.43
1148.3		TO-R	LORDSBURG	0.0	12.10 PM	5.37 PM
			(124.0)		Leave Daily	Leave Daily
			Time over District		(3.35)	(2.58)
			Average Speed per Hour		34.14	41.79

ADDITIONAL STATIONS

NAME	Mile Post	Capacity
Polvo (Spur)	987.7	4
Wilmot (Spur)	990.7	13
Esmond	998.6	..

RULES 86 and 93. Second-class trains, extra trains and engines must be clear of main track and insulated joints at meeting and passing points for Nos. 1, 2, 4 and 40.

Westward trains will use No. 1 Track, Rio Grande Division, Mescal to Tucson, and eastward trains will use No. 2 track, Tucson Division, Tucson to Mescal, under double track rules.

#1 STOP WILLCOX ENTRAIN FOR COLTON, DETRAIN FROM EL PASO.

EASTWARD

SECOND CLASS

Timetable No. 118

October 6, 1946

Capacity of sidings in car lengths	866	964	864	962	862	960	Mile Post Location			STATIONS		Distance from Tucson
	Freight	Freight	Freight	Freight	Freight	Freight						
	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily						
Tucson Yard BKWCOITYP	PM 7.00	PM 4.05	PM 12.01	AM 7.00	AM 4.00	AM 12.50	983.9	Automatic Block System	TO-R	**TUCSON**	No. 2 Track	0.0
63 P	7.28	4.40	12.28	7.35	4.28	1.25	993.8			9.9 **RANKIN**		9.9
63 P	7.50	5.05	12.50	8.00	4.50	1.50	1003.3			9.5 **VAIL**		19.4
79 WP	8.10	5.35	1.10	8.30	5.10	**2.33**	1012.6			9.3 **PANTANO**		28.7
N 94 Yard Limits S 85 CIYP	**8.35**	6.10 PM	1.35	9.05 AM	5.35	3.15 AM	1023.6		TO-R	11.0 **MESCAL**		39.7
77 P	8.45		1.45		5.45		1028.2			4.6 **CHAMISO**		44.3
E 118 Yard Limits W 70 BKWOP	9.05		2.05		6.05		1032.5 1032.6		TO	4.3 **BENSON**		48.6
62 P	9.15		2.15		6.15		1035.8			3.2 **FENNER**		51.8
83 P	9.25		2.25		6.25		1038.5			2.7 **CURVO**		54.5
75 WP	9.35		2.35		6.35		1040.8		TO	2.3 **SIBYL**		56.8
100 P	9.45		2.45		6.45		1043.9 1044.5			3.1 **TULLY**		59.9
63 P	9.53		**2.53**		6.53		1047.3			2.8 **OCHOA**		62.7
65 P	10.03		3.03		7.03		1050.8			3.5 **LANCHA**		66.2
E 65 W 65 YP	10.13		3.13		7.13		1053.9		TO	3.1 **DRAGOON**		69.3
81 P	10.22		3.22		7.22		1058.3			4.4 **MANZORO**		73.7
90 P	10.31		3.31		7.31		1063.9		TO	5.6 **COCHISE**		79.3
64 P	10.40		3.40		7.40		1069.6			5.7 **HADO**		85.0
68 WP	10.48		3.48		7.48		1074.7		TO	5.1 **WILLCOX**		90.1
61 P	10.55		3.55		7.55		1079.4			4.7 **DRURY**		94.8
99 P	11.05		4.05		8.05		1082.6			3.2 **RASO**		98.0
64 P	11.13		4.13		8.13		1087.7			5.1 **ALRICH**		103.1
64 P	11.19		4.19		8.19		1091.0			3.3 **LUZENA**		106.4
63 P	11.25		4.25		8.25		1094.5			3.5 **CHOLLA**		109.9
E 110 Yard Limits W113 BKWCOYP	11.40		4.40		8.40		1098.4		TO-R	3.9 **BOWIE**		113.8
64 P	11.49		4.49		8.49		1102.6			4.2 **HOLT**		118.0
63 P	PM 11.57		4.57		8.57		1106.6			4.0 **OLGA**		122.0
63 P	AM 12.03		5.03		9.03		1110.2			3.6 **KARRO**		125.6
63 BKWCOYP	12.10		5.10		9.10		1114.2		TO	4.0 **SAN SIMON**		129.6
64 P	12.20		5.20		9.20		1117.6			3.4 **BAWTRY**		133.0
74 P	12.30		5.30		9.30		1121.8			4.2 **VANAR**		137.2
70 P	12.41		5.41		9.41		1125.0			3.2 **CAVOT**		140.4
E 66 W 69 YP	12.58		**6.02**		9.58		1128.9		TO	3.9 **STEINS**		144.3
62 P	1.05		6.09		10.05		1132.7			3.8 **MONDEL**		148.1
63 P	1.10		6.14		10.10		1136.5			3.8 **CONRAD**		151.9
62 P	1.17		6.20		10.17		1140.8			4.3 **GARY**		156.2
63 P	1.23		6.25		10.23		1143.9			3.1 **PYRA**		159.3
Yard Limits BKWCOYP	1.35 AM		6.35 PM		10.35 AM		1148.3		TO-R	4.4 **LORDSBURG**		163.7
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily				(163.7)		
	(6.35) 24.89	(2.05) 19.05	(6.34) 24.89	(2.05) 19.05	(6.35) 24.89	(2.25) 15.04				..........Time over District.......... ....Average Speed per Hour.......		

RULES 86 and 93. Second-class trains, extra trains and engines must be clear of main track and insulated joints at meeting and passing points for Nos. 1, 2, 4 and 40.

Westward trains will use No. 1 Track, Rio Grande Division, Mescal to Tucson, and eastward trains will use No. 2 Track, Tucson Division, Tucson to Mescal, under double track rules.

BOWIE SUBDIVISION

EASTWARD					Timetable No. 118 October 6, 1946		WESTWARD	
Capacity of sidings in car lengths	SECOND CLASS	FIRST CLASS	Mile Post Location		Globe Branch	Distance from Live Oak	FIRST CLASS	SECOND CLASS
	884 Freight	382 Passenger					381 Passenger	883 Freight
	Leave Daily Ex. Monday	Leave Daily			STATIONS		Arrive Daily	Arrive Daily Ex. Sunday
E 110 Yard Limits W 113 BKWCOYP	AM 8.00	PM 3.00	1098.4 1098.1	TO-R	**BOWIE**	136.1	PM s 1.00	PM 5.30
50 P	8.25	3.17	1107.4		9.3 **ESCALA**	126.8	12.36	5.00
13 P	8.50	f 3.33	1117.8		10.4 **TANQUE**	116.4	f 12.17	4.40
42 P	9.05	3.44	1125.1		7.3 **HAECKEL**	109.1	12.04 PM	4.20
38 P	9.25	s **3.57**	1132.6		7.5 **SOLOMON**	101.6	s 11.52 AM	**3.57**
Yard Limits 52 WP	10.20	s 4.10	1137.5	TO	4.9 **SAFFORD**	96.7	s 11.40	3.30
34 P	10.35	s 4.20	1140.6		3.1 **THATCHER**	93.6	s 11.28	2.25
28 P	10.55	s 4.31	1145.6	TO	5.0 **PIMA**	88.6	s 11.18	2.05
62 P	**11.14**	4.35	1146.7		1.1 **DUBLIN**	87.5	**11.14**	1.50
59 P	AM 11.45	f 4.46	1153.0		6.3 **CORK**	81.2	f 11.04	1.25
59 P	PM 12.03	s 4.59	1159.3	TO	6.3 **FT. THOMAS**	74.9	s 10.53	1.03
17 WP	12.18	f 5.08	1164.2		4.9 **GERONIMO**	70.0	f 10.43	12.50
54 P	**12.35**	f 5.19	1170.1		5.9 **BYLAS**	64.1	f 10.31	**12.35**
52 P	12.57	f 5.31	1176.8		6.7 **CALVA**	57.4	f 10.19	12.20 PM
P	1.40	5.59	1191.0		14.2 **DILI**	43.2	9.51	11.40 AM
52 WP	2.10	s 6.20	1201.0	TO	10.0 **SAN CARLOS**	33.2	s 9.30	11.10
43 P	2.50	f 6.47	1213.5		12.5 **CUTTER**	20.7	f 9.06	10.40
Yard Limits BKWOTP	3.20 PM	s 7.10 PM	1221.5	TO-R	8.0 **GLOBE**	12.7	8.45 AM	10.10 AM
13 P			1226.2		4.7 **RADIUM**	8.0		
Yd. Lmts. WYP			1231.9	TO-R	5.7 **MIAMI**	2.3		
27 Spur			1233.0		1.1 **INSPIRATION JCT.**	1.2		
14 Spur			1234.2		1.2 **LIVE OAK** Gaban 5-1-47	0.0		
	Arrive Daily Ex. Monday	Arrive Daily			(136.1)		Leave Daily	Leave Daily Ex. Sunday
	(7.20) 16.87	(4.10) 29.69			Time over District Average Speed per Hour		(4.15) 29.11	(7.20) 16.34

No. 381 and No. 382 stop on flag at Peridot.

Between MP 1184 and MP 1196: Look out for rocks and landslides.

All train and engine movements must be preceded by section crew from Inspiration Jct. to Live Oak.

ADDITIONAL STATIONS		
NAME	Mile Post	Capacity
Lone Star.......(Spur)	1135.3	10
Glenbar..............	1148.9	..
Ashurst..............	1154.8	..
Peridot..............	1197.3	..
Reppy................	1207.8	..
Pinal...........(Spur)	1219.3	12
Burch...........(Spur)	1227.3	3
Claypool........(Spur)	1230.2	9

RULE A. All, or portions of, the following rules have been changed. Pasters have been printed covering these changes, and employes must have the pasters in their copy of Book of Rules:

Rules 10(H)
15
26
99
210
221
271
295
297
705
707
708
763
837

RULE 2. Watch Inspectors:

S. A. Pope, Manager of Time Service	65 Market St., San Francisco
Yuma	J. H. Huber
Phoenix	H. H. Howard
Tucson	Grunewald & Adams
Tucson	R. W. Hemkin
Nogales	G. C. Jackson
Lordsburg	E. L. Preis
Safford	Adolph J. Cubitto
Globe	J. C. Cubitto
Miami	J. C. Cubitto, Jr.

RULE 2 (A). Watches subject to inspection must be presented to a designated inspector for comparison, and certification on standard watch certificate between the first and fifteenth of each month.

RULE 10 (J). Certain slow boards have the word "SIGNAL" above the figures. Such slow boards in approach to a distant signal indicate the speed that must not be exceeded while engine is passing the distant signal three-fourths mile beyond slow board, unless distant signal can plainly be seen to be displaying proceed indication; and such slow boards in approach to a home signal indicate the speed that must not be exceeded while approaching home signal three-fourths mile beyond the slow board, until indication of home signal can plainly be seen.

Slow boards for westward trains at MP 922.8 and MP 1041.5 also have lamp attached which displays yellow light at night. This light is to call attention to slow board, and is not a yellow signal referred to in Rule 10 (H).

RULE 14. Other engine whistle signals:
For diverging route, o — o.
For siding, — o —.

RULE 17. Oscillating white light on engines so equipped is to be operated in addition to headlight, when engine is moving at night, and in foggy or stormy weather by day. It must be extinguished approaching passenger stations.

Oscillating red light on engines so equipped shall be operated by day or night, only when a train has stopped, or is stopping, under circumstances that may cause an adjacent track to be fouled, and will not in any way relieve trainmen or enginemen from compliance with Rules 99 and 102. A train or engine on adjacent track must stop at once, and may proceed only after ascertaining that track is safe for passage of trains.

RULE 28. In double track territory signals will be placed to right of track according to direction of movement of train to be flagged. Trains in opposite direction will not be required to observe signals so placed.

RULE S-72. Westward trains are superior to trains of the same class in the opposite direction, except as shown on Pages 6, 7 and 11.

RULE 105. Abbreviations used for sidings: "E" for Eastward, "W" for Westward, "M" for Middle, "N" for North, "S" for South. Sidings designated as Middle, North or South, may be used by trains in either direction.

RULE 505. AUTOMATIC BLOCK SYSTEM

PUSH BUTTONS

Where signal protection is provided for movements from an adjacent track to main track, push buttons and pilot lights are installed in box near each of the two signals, with time-release feature, to clear signals on one track when the control circuit on the other track is occupied.

Train on main track to let train on siding pass may clear signal on siding by pressing button bearing number of signal on siding. Train on siding to let train on main track pass should not pass Approach Circuit sign, but when necessary to do so, may clear signal on main track by pressing button bearing number of signal on main track.

Pilot light will appear after time-release has operated and signal has cleared.

Further instructions posted inside push-button box.

ELECTRIC SWITCH LOCKS

Where electric switch locks are installed, lock box door must not be opened if movement is to be made into a track leading from main track until engine or car is standing within 150 feet of the switch; or if movement is to be made from such track, or through a crossover to a main track, until switch indicator indicates block clear on opposite track.

After lock box door is opened lock lever cannot be moved to opposite position to release switch for hand throwing until indicator in lock box indicates "unlocked".

Lock lever must not be returned to locked position until all movements over the switch are completed, switch returned to normal position and locked.

When switch indicators indicate "block occupied", instructions posted inside lock box for operation of push button to start time-release must be complied with if movement is to be made to main track while approach circuit is occupied by another train, in addition to providing flag protection when necessary.

Emergency lock release to be used only in case of electrical or mechanical failure, as indicated by failure of time-release to function after several minutes. When necessary to break seal on emergency lock release, dispatcher's permission must first be obtained, and movement made only after flag protection provided on both tracks.

Low type electric locks, such as are applied direct to lever of hub type switch stands, function as above except that the removal of the switch padlock has the same effect as opening the lock box door. Instead of being equipped with an "unlocked" indicator, these locks have a pilot light that indicates by illumination when the lock is unlocked.

RULE 535. A spring switch with facing point lock must not be trailed through unless switch target displays the letters "SS" in normal position, or switch has been lined for the movement.

When a signal with triangular number plate protecting a spring switch with facing point lock displays stop indication, member of crew must open and close spring switch by hand, removing any obstruction. If signal does not then display proceed indication, switch must be hand thrown for the movement.

When a spring switch or spring derail is hand thrown, trainman so setting same must again set it for normal position after movement has been completed, unless he has arranged for another trainman to do so.

RULE 536. Wheels of tenders must not be considered as engine wheels.

GENERAL REGULATIONS

RULE 824. Instructions for setting hand brakes:

At points where hand brakes must be set on freight trains such brakes must be securely set, using standard brake club to set staff brakes, after train or cut has stopped, unless yardmen immediately take charge and yard engine is coupled to cars. Any employe releasing any of these brakes must set as many others to replace them.

RULE 827. TRAIN INSPECTION

Engines running light on descending grades must stop for inspection at freight train inspection points.

Trains, including military trains, made up in part of freight cars or caboose equipped with cast iron wheels are required to comply with rules and timetable instructions applying to freight trains as they relate to stopping for train inspection, and speed restrictions.

Cars bearing placards denoting contents are explosive, inflammable, poisonous or otherwise dangerous, must be given careful inspection at all points where train inspection is made.

RULE 835. Spring switches must be locked while train movements are being made over them.

RULE 836. Cars moved from one station to another ahead of engine on descending grade must be chained to the engine. Switching movement on descending grades must be protected by a derail. When practicable engine must be kept on descending grade end of cars.

RULE 849. Steam valve on Pullman troop sleepers cannot be opened while train is in motion, and when such car is on rear of train steam line must not be cut in any portion of train until valve is closed on the car on each side of coupling to be opened, to avoid burning by steam.

MISCELLANEOUS

1. In all cases where it is necessary to make a short move with heavy freight train to reach water or oil column, including that required to spot second engine of double-headed train, engine must be cut off before spotting at column.

4. Helper service:

No helper engine will be placed behind wooden underframe cars or cabooses.

Engines weighing more than 235,000 pounds on drivers will not be placed behind steel underframe cabooses.

In no case will more than one helper engine be placed behind steel underframe cabooses.

One helper may be placed on head end, but not more than two engines will be used on head end of any freight train. When additional helpers are required, they will be placed back in train and cut in ahead of any cars of wooden frame construction and when practicable should be placed behind a loaded car.

When one Diesel helper is used it will be placed on head end; when two Diesel helpers are used, one will be placed on head end and one on rear end; when one Diesel and one steam engine are used as helpers the Diesel will be placed on head end and steam engine helper on the rear.

Air will be cut in on all helper engines, and engine must not be cut off when train is in motion.

When used as helpers in rear of train, AC, AM or MM class engines must not be coupled together, nor may more than two F, Mt, or heavier class, or more than three smaller classes be coupled together. When coupled, larger engines must be placed ahead of smaller engines. If tonnage requires more power, additional helpers of not to exceed two coupled in each case, must be separated by at least four cars.

Helpers must not be operated backing except in emergency, and in such case engines should not push through a backing engine if it can be avoided.

Helper engines coupled in middle or rear of train must be cut off from forward portion before taking water. On grades road engine and helper must not be cut off from train at the same time without sufficient hand brakes being securely set.

4 (a). For the purpose of pushing trains out of yards:

No engine will be placed behind wooden underframe caboose or other wooden frame equipment.

Engines weighing more than 235,000 pounds on the drivers will not be placed behind steel underframe cabooses.

Air will not be coupled through pusher engine.

Yard engines regularly so used will be equipped with Russell-Jordan device to hold the coupler pin from dropping, thus making it unnecessary for employes to uncouple the pusher engine when cutting off.

In no case shall the knuckle be removed, or closed, or cutting lever temporarily fastened in release position on a pusher engine, as means of preventing coupling being made.

Unless local conditions require, it will not be necessary to stop trains to detach pusher engines.

7. Capacity of sidings between clearance points is based on an average car length of 49 feet not including engines and caboose.

10. When a sign reading "Occupied Outfit Cars" is attached to switch lock, the outfit cars must not be coupled to, nor moved, until occupants have been notified, and permission given by foreman or his representative.

20. Handling of freight cars in trains behind passenger cars is prohibited except passenger equipment may be placed in head end of mixed trains when carrying personnel and equipment in connection with military and naval movements. This does not refer to a baggage, express, or mail car, or a caboose.

Baggage, express, mail, refrigerators or other head end cars must not be handled on rear of passenger trains unless trainmen can pass through them.

All cars handled in passenger trains must be equipped with steel-tired or all-steel wheels.

When necessary to handle passenger equipment, except official cars in freight trains, it must be placed next to caboose, provided rear-end freight cars in train will permit.

21. Employes are warned that it is dangerous to ride on top or sides of cars where impaired clearance exists.

There are numerous structures with impaired clearance on yard and station tracks on the division, and employes must be familiar with their locations and avoid personal injury.

25. Electric lanterns may be used for displaying white light only, except may be used by herders for displaying green lights.

SPEED RESTRICTIONS

*List of CCB (cross-counterbalanced) engines:

All P-8 class, except eng. 2470.
All F-1 class, except engs. 3613, 3618, 3627, 3639.
All F-3 class.
All F-4 class, except engs. 3673, 3680, 3694, 3700, 3710, 3713.
All F-5 class, except engs. 3719, 3726, 3730, 3743, 3744, 3745, 3751, 3761.
All T&NO F-1 to F-5 class.
All AC-6 class, except engs. 4134, 4145.

MAXIMUM SPEED PERMITTED CERTAIN ENGINES, SUBJECT TO FURTHER RESTRICTIONS AS SHOWN IN SPEED RESTRICTIONS TABLE

Maximum speed for S and SE class engines, 20 MPH, but must not exceed speed permitted freight and mixed trains and light engines.

Engines backing must not exceed 20 MPH on all curves, and when approaching road crossings at grade.

Engines coupled tender to tender must not exceed speed permitted same engines running light backward.

Engines with tenders having water capacity 7,000 gallons or less, except Classes 70-R-1 and 70-SC-1, must not exceed 50 MPH.

When train order is received indicating that main track is out of service and that trains are to be detoured through a siding or other track, or over a shoofly, necessitating a reduction in normal train speed, signal 16(f) must be sounded on passenger trains one mile before reaching point where train must reduce speed, which must be acknowledged by whistle signal 14(g).

Diesel electric switch engines running forward, with train or light, may make maximum speed as shown below, except must not exceed speed permitted freight and mixed trains. These engines when backing may make speed shown below, except must not exceed speed permitted E class engines backing where such permitted speed is less than 30 MPH:

Classification	Running Forward With Train	Running Forward Light	Running Backward With Train or Light
DES-200	30	30	30
DES-1 to 7, 100 to 107	40	40	40

Maximum speed of engines under following conditions, running under own steam or hauled in train must not exceed:

When all weight has been removed from any one pair of drivers .... 20 MPH
When all weight has been removed from only one wheel from any pair of drivers .... 30 MPH
When engine truck is removed .... 20 MPH
When main rod only is removed .... 30 MPH
When side rod only is removed .... 30 MPH
When both main and side rods are removed .... 20 MPH
When hauled in train with all rods on .... 30 MPH

MAXIMUM SPEED PERMITTED WITH CERTAIN EQUIPMENT

	MPH
Trains handling wooden pile-drivers; locomotive cranes with boom disconnected and heavy end forward; steam shovels and ditchers transported on their own wheels; and car-top ditchers when blocking and tie-down cables are removed:	
On tangent main tracks except	35
SPMW 4044	25
On tangent branch tracks	25
On all curves 5 MPH less than speed authorized. Where slow boards in place 5 MPH less than shown on slow boards, except where speed indicated is 15 MPH or less be governed by slow boards.	
Trains handling locomotive cranes with boom disconnected and light end forward (must not be handled in this manner except in emergency):	
On tangent main tracks	20
On curves and on branch tracks	15
Trains handling locomotive cranes with boom in place, either end forward (to be handled in work train when practicable):	
On tangent main tracks	25
On curves and on branch tracks	15
Trains handling steel pile-drivers may make maximum restricted freight train speed.	
Trains handling relief outfit with steam derrick:	
On tangent main tracks	35
On tangent branch tracks, except	25
(Relief outfits 7014 and 7025 must not be operated on any branch except Litchfield, Nogales and Creamery branches.)	
On all curves, 5 MPH less than speed authorized. Where slow boards in place, 5 MPH less than shown on slow boards, except where speed indicated is 15 MPH or less be governed by slow boards.	

Maximum speed provided for passenger trains, will apply to No. 370 when that train consists entirely of passenger equipment, or cars with steel wheels, including box cars with steel wheels, or caboose with steel wheels, except that maximum speed of 60 MPH must not be exceeded.

Passenger trains handling steel wheel box cars in series 5810 to 5874, and foreign line steel wheel box cars equipped for movement in passenger trains, but not equipped with high speed trucks, must not exceed 60 MPH. Wooden equipment must not be handled in regular passenger trains. Extra passenger trains handling wooden coaches or chair cars must not exceed 40 MPH.

If consist of train includes both wooden and steel passenger-carrying cars, the wooden cars must be kept together and handled on rear.

Maximum speed of deadhead equipment or passenger trains with standard caboose is 50 MPH.

Trains consisting of engine and caboose only must not exceed restricted freight train speed.

RULE 14 (e). As specified below, — — — — — — sounds of whistle will be indication that flagman may return from east as prescribed by Rule 99:
Wellton, Trains on Phoenix Line.
Litchfield, Trains on Litchfield Branch.

RULE 21(C). At Phoenix and Gila, incoming engines may display indicators until arrival at roundhouse.

RULE 83. Identification may be made on double track between Yuma and East Yard; Dome and Wellton; Phoenix and Phoenix Yard; to be applied at end of double track. Reduce speed sufficiently to permit identification and Rule 14 (k) will apply.

RULE 83 (A). At the following stations, only trains indicated will register:
East Yard..............Westward trains entering yard tracks.
Phoenix.......................First-class trains, except No. 370.

Operator, Phoenix, will report arrival and departure of all trains on the Wellton Subdivision, originating or terminating at Phoenix, to operator Phoenix Yard, who will enter on Wellton Subdivision register and verify by repeating registration.

Operator, Phoenix Yard, will report arrival and departure of No. 370 to operator, Phoenix, who will enter on registers and verify by repeating registration.

RULE 83 (B). At open train-order offices trains may register by ticket as follows:
East Yard..............Westward trains entering yard tracks.
Phoenix...........................Nos. 1, 2, 3, 4, 39 and 40.
Phoenix Yard..................First-class trains, except No. 370.

RULE 93. Yard limits in which the provisions of Rule 93 will apply are established at the following points:

West MP		East MP
731.51	Yuma	737.83
	“ (Yuma Valley R. R.)	0.22
769.13	Wellton	771.00
	“ (Gila Line)	771.00
900.96	Phoenix	908.79
854.20	Gila	857.70

RULE D-97 (A). Will apply between Phoenix and Phoenix Yard.

RULE 99. First-class trains must move with caution on passenger tracks at Phoenix, and trains standing on these tracks need not protect against following first-class trains, but must comply with Rule 99 (A).

RULE 103 (A). A flagman must precede all movements over:
Yuma, 1st, 2nd, 3rd and 4th Sts.
Dateland, U. S. Highway 80.

RULE 103 (B). Back-up hose must be used on leading car when shoving cars on Government tracks at Airport at Yuma.

RULE 104. Normal position of rigid switches at the end of double track and at junctions, is as follows:
Phoenix....... Switch in eastward main track, immediately west of First Avenue, Phoenix, from main track to eastward main track.
Phoenix..........West end double track, for westward track.
Litchfield.........Litchfield Br., for Phoenix line.
Yuma.............Yard track on Madison Ave., for YVRR main track.

Normal position of west crossover switch from yard track 1 to eastward main track at East Yard, is for tail track.

DERAILS IN MAIN TRACK:

Litchfield Park, 70 feet west of west switch of team track.

RULE 105. Following tracks are designated for use as sidings:
Fowler........Track north of main track.
Mohawk........First track north of main track, for eastward trains;
Second track north of main track, for westward trains, and connects with eastward siding at each end.
Aztec.........Track north of main track, for westward trains;
Track south of main track, for eastward trains.
Sentinel.......Track north of main track, for eastward trains;
Track south of main track, for westward trains.

RULE 221. Phoenix is train-order office for first-class trains except No. 370.

RULE D-251. Applies to the following tracks:
Westward track, East Yard to Yuma. Extra trains and engines must receive proceed signal from yardman (white flag by day, green light by night) before leaving East Yard, before passing Signal 7341, and before passing Signal 7331.
Both tracks between Phoenix and Phoenix Yard.

RULE 505. AUTOMATIC BLOCK SYSTEM

Yuma: Eastward freight trains must not pass Signal 7328, and westward trains, except first-class, must not pass Signal 7341 unless proceed signal received from yardman (white flag by day, green light by night).

East Yard: Westward trains entering yard tracks must not pass Signal P-7375 unless proceed signal received from yardman (white flag by day, green light by night).

Phoenix: Crossing—AT&SF Wye: If signal indicates "stop" trains and engines must stop, and if wye is clear of intersecting movement, may then proceed as prescribed by Rules 509(F) or 509(J), but must provide flag protection on intersecting track unless derail is known to be in derailing position.

Phoenix: Main track has no block signal protection between Signal 9061 and end of double track; and double track has no block signal protection from west end to Signal 9064.

RULE 510. The following block signals equipped with triangular number plate displaying the letter "P", have included in their control limits some special protective device:

Eastward Signals	Protection	Westward Signals
P- 7372 P- 7374	Spring switch, end double track, East Yard	P- 7375
P- 7532	Spring switch, end double track, Dome	P- 7535
	Spring switch, east end siding, Pembroke	P- 7889
P- 7956	Spring switch, west end siding, Kim	
P- 8252	Spring switch, west end siding, Sentinel	
P- 9052	Spring switch, west end pass'gr. lead, Phoenix	
	Spring switch, east end double track, Phoenix Yard	P- 9075

RULE 516. Overlap posts:
23rd Ave. Phoenix.........Middle of Siding Eastward trains.
Middle of Siding Westward trains.

RULE 535. SPRING SWITCHES

Spring switches equipped with facing point locks are located as follows, and speed indicated must not be exceeded while trailing through the switches:

Location		Normal Position	MPH
Yuma	West end bridge, end double track	Westward track	6
Yuma	East end bridge, end double track	Eastward track	6
East Yard	End double track	Westward track	25
Dome	End double track	Eastward track	35
Pembroke	East end siding	Main track	25
Kim	West end siding	Main track	25
Sentinel	West end westward siding	Main track	25

Spring switches not equipped with facing point locks are located as follows, and speed indicated must not be exceeded while passing over the switches in facing movement, or in trailing through them:

Location		Normal Position	MPH
Phoenix	Main track at passenger lead	Passenger lead	15
Phoenix Yard	East end double track	Westward track	15

Spring switch is also located on engine lead at Yuma.

Switch position indicator at spring switch on engine lead, Yuma indicates position of switch points, and does not indicate track occupancy. When indicator displays red aspect careful examination of switch must be made before passing over switch.

RULE 605. INTERLOCKING

Wellton: Limits extend from westward interlocking signals 4,000 feet east of station building on Gila line and on Phoenix line, to eastward interlocking signals 400 feet west of station building on westward track and 1,000 feet west of station building on eastward track.

The derail at east end of siding is electrically locked, and can be operated by trainmen only when released by signal operator.

Switches and derails to spurs leading from westward main track, just west and east of station building are hand-thrown, but must not be used until permission is secured from signal operator.

RULE 705. LETTER TYPE INDICATORS

Indicators located as follows:

Illuminated Letter	On Post at MP	Approaching	Authorizes and Requires Movement as Follows
M	769.2	Wellton	Proceed to interlocking limit.
S	769.2	Wellton	Enter siding.

RULE 740. ABSOLUTE-PERMISSIVE BLOCK SYSTEM

YUMA-COLORADO

Limits extend from absolute signals west of Colorado River bridge to absolute signals east of Colorado River bridge. Speed must not exceed 6 MPH until engine has passed spring switch at opposite end of bridge.

Trains stopped by absolute signal west of bridge must obtain permission from yardmaster, and also make inspection of spring switches at each end of bridge before proceeding.

GENERAL REGULATIONS

RULE 824. Instructions for setting hand brakes:

Yuma: Freight trains	Four brakes on east end, Two brakes on west end.
East Yard: Freight trains	Two brakes on east end, Five brakes on west end.
Phoenix Yard: Freight trains	Two brakes on west end, Two brakes on east end.

RULE 825. Cars or engines must not be set out on siding at Horn.

RULE 827. TRAIN INSPECTION

Freight trains must be inspected at each water stop. When conditions are favorable, and in the judgment of conductor and engineer it is safe to do so, and when additional stops can thereby be avoided, freight trains may run between water stops without stopping for inspection, provided the distance is not over 60 miles, except freight trains and light engines may run between Aztec and Yuma, for inspection. This does not relieve trainmen from making inspection when stops permit, or whenever it is necessary in the judgment of conductor or engineer.

AIR BRAKE RULES

PASSENGER TRAINS

RULE 39. Running air-brake test not required of eastward passenger trains approaching Crossing—AT&SF Wye.

Incoming passenger enginemen will leave automatic air brakes set on trains at Phoenix and Yuma after final stop has been made.

Outgoing enginemen will release brakes on signal from carmen, this signal to be given only after all switching has been done.

MISCELLANEOUS

1. Aztec and Sentinel, water for engine purposes is treated and must not be taken for domestic use except as follows:

Aztec, water rack, or by closing valve between treater and water column.

Sentinel, water rack.

Aztec, westward freight trains take water when possible and take water at Sentinel only when it will avoid delay west of there.

Sentinel, eastward freight trains take water and fill water car, and take water at Aztec only when necessary or when it will avoid delay at Sentinel.

Saddle and Buckeye, emergency water stations, take only enough water to reach next water station.

Open sprinklers on engines so equipped while passing over following bridges:

Ligurta Arroyo	761.82
Ligurta Creek	763.00
First Gila River	777.81
First Quail Springs	845.31
Second Quail Springs	845.89
Third Quail Springs	846.09
Fourth Quail Springs	846.34
Fifth Quail Springs	846.79
Hassayampa River	866.93
Agua Fria River	890.95

5. Litchfield, gate at entrance Airplane spur is locked with Government lock, and to gain entrance it will be necessary for engineer to sound a long and short blast of steam whistle and the watchman on duty will take care of the opening and closing of the gate.

Litchfield Park, Boswell spur is protected by gate, which must be kept closed and locked when not in use.

10. Engines must not use Seaside Oil Co. spur at Buckeye.

Derail on Government spur at Dateland, 360 feet west of main track switch.

Load limit (car and contents):

Yuma-Phoenix Yard	240,000 pounds
Wellton-Gila	240,000 pounds
Litchfield-Litchfield Park	210,000 pounds

Unless authorized by Superintendent, heavier loads must not be handled.

11. Phoenix, Santa Fe and Southern Pacific trains may jointly use tracks at east and west end of Union Station. Yard and light engines must take every precaution possible to avoid delaying first-class trains on all tracks within Union Station zone. Trains will approach switch at entrance to Union Station tracks prepared to stop and will proceed only when track is known to be clear.

LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT STANDARD CLEARANCE ON MAIN TRACK AND SIDINGS

Mile Post	Location	Description
	YUMA - PHOENIX	
778.0	Gila River bridge	Side
891.0	Agua Fria River bridge	Side

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS	With Caution Not Exceeding MPH
Through sidings, yard and other side-tracks, crossovers, turnouts and slip-switches, except:	15
★Over, upon, or across any street crossing, Yuma	5
On Government tracks at Yuma airport	10
“ (with engine backing)	5
Through any crossover, turnout or slip-switch with engine backing	10

★Regulated by city ordinance.

SPEED RESTRICTIONS: Maximum speed of trains with engines of various classes is shown below. Trains with engines not listed must not exceed 35 MPH. Speed must be further restricted as required by slow boards, and may be exceeded only as authorized by special instructions herein, or by timetable bulletin.

Page No.	TERRITORY	WITH TRAIN — ENGINE RUNNING FORWARD										LIGHT ENGINE RUNNING FORWARD				ENGINE BACKING WITH TRAIN OR LIGHT	
		PASSENGER								*FREIGHT AND MIXED							
		P-8 (if CCB*) P-7-10-12 GS Mt	E A P-1-3-4-5-6-11 P-8 (if not CCB*)	T-26-32-37-40	AC-4-5-7-8-9-10-11-12 AC-6 (if CCB*)	T-1-8-9-23-28-31-36-57-58 Mk-5-6-7-8-9 F (if CCB*) SP	M AM-2	C-2-4-5-8-9-10-18-19-26-27-28-29 Mk-2-4 TW F (if not CCB*) AC-1-2-3-6 (if not CCB*)	C-15-17-32 Mk-10-11 MM-3	With no Restricted Cars (see note)	With Restricted Cars (see note)	E P A Mt GS	T-26-32-37-40 F (if CCB*)	M T-1-8-9-23-28-31-36-57-58 C-2-4-5-8-9-10-18-19-26-27-28-29 Mk-5-6-7-8-9 F (if not CCB*) SP	C-15-17-32 TW Mk-2-4-10-11 AC AM-2 MM-3	E A T P C TW Mk F Mt GS SP	M AC AM-2 MM-3
	COLUMN:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2, 3, 4	Between Yuma and Phoenix, except	70	65	60	55	50	45	40	35	50	40	45	40	35	30	30	25
	MP 731.51-west end Colorado River bridge	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	Over Colorado River bridge	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	Colorado River bridge-MP 733.01 (Yuma)	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	MP 733.01-MP 734.10 (Yuma)	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
	MP 734.10-MP 737.51 (end double track)	60	60	60	55	50	45	40	35	40	40	45	40	35	30	30	25
	MP 737.51-MP 741.10	65	65	60	55	50	45	40	35	40	40	45	40	35	30	30	25
	MP 741.10-MP 748.58	50	50	50	50	50	40	40	35	35	35	45	40	35	30	30	25
	MP 748.58-MP 755.12	40	40	40	40	40	40	40	35	35	35	40	40	35	30	30	25
	MP 755.12-MP 762.88	50	50	50	50	50	40	40	35	35	35	45	40	35	30	30	25
	MP 762.88-MP 769.92 (Wellton), except	60	60	60	55	50	45	40	35	40	40	45	40	35	30	30	25
	MP 769.92 to MP 766.00 on westward track	50	50	50	50	50	40	40	35	35	35	45	40	35	30	30	25
	Wellton, through interlocking, except	50	50	50	50	50	40	40	35	35	35	35	35	35	30	30	25
	Over switches to Texas Co. & Shell Co. spurs	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	Through east crossovers	25	25	25	25	25	25	25	25	20	20	20	20	20	20	20	20
	MP 770.83-MP 771.01	50	50	50	50	50	40	40	35	35	35	45	40	35	30	30	25
	MP 776.36-MP 777.78	55	55	55	55	50	45	40	35	40	40	45	40	35	30	30	25
	MP 779.29-MP 790.00	50	50	50	50	50	40	40	35	35	35	40	40	35	30	30	25
	MP 795.00-MP 899.00 (Fowler)	50	50	50	50	50	40	40	35	35	35	40	40	35	30	30	25
	MP 899.00-MP 903.00	65	65	60	55	50	45	40	35	40	40	45	40	35	30	30	25
	MP 903.00-MP 904.77	40	40	40	40	40	40	40	35	25	25	40	40	35	30	30	25
	MP 904.77-MP 907.91 (end double track)	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
5	Between Wellton and Gila, except	70	65	60	55	50	45	40	35	50	40	45	40	35	30	30	25
	MP 770.83-MP 772.06	50	50	50	50	50	45	40	35	35	35	45	40	35	30	30	25
	MP 772.06-MP 772.78	60	60	60	55	50	45	40	35	40	40	45	40	35	30	30	25
	MP 772.78-MP 792.50	65	65	60	55	50	45	40	35	40	40	45	40	35	30	30	25
	MP 792.50-MP 794.03	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	25
	MP 794.03-MP 795.00	50	50	50	50	50	45	40	35	35	35	45	40	35	30	30	25
	MP 795.00-MP 800.00	65	65	60	55	50	45	40	35	40	40	45	40	35	30	30	25
	MP 800.00-MP 813.00	70	65	60	55	50	45	40	35	50	35	45	40	35	30	30	25
	MP 822.41-MP 823.61	50	50	50	50	50	45	40	35	35	35	45	40	35	30	30	25
	MP 823.61-MP 825.18	45	45	45	45	45	45	40	35	35	35	45	40	35	30	30	25
	MP 825.18-MP 854.97 (Gila)	65	65	60	55	50	45	40	35	40	40	45	40	35	30	30	25
	MP 854.97-MP 856.80 (Gila)	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	25

*Freight and mixed trains with an engine listed in columns 6, 7 or 8 must not exceed maximum speed permitted the same engine when handling passenger train.

(Note) **RESTRICTED CARS:** Twin or multiple loads; cars of excess height or width; loads of excess height, width or weight; any equipment listed under "Maximum Speed permitted with Certain Equipment"; and cars with arch-bar trucks.

Page No.	TERRITORY	PASSENGER	FREIGHT AND MIXED	LIGHT ENGINE RUNNING FORWARD	ENGINE BACKING WITH TRAIN OR LIGHT
4	Between Litchfield and Litchfield Park	20	20	20	15

RATING OF ENGINES—In Units of 1000 Lbs. (Ms)

NOMINAL CLASS	ENGINE NUMBERS	Yuma to East Yard Pembroke to Mohawk Lava to Sentinel	East Yard to Pembroke Mohawk to Lava Sentinel to Gila Welton to Saddle 2 M W Gillespie to Phoenix Yard	Saddle to 2 M W Gillespie	Gila to Kim, Mohawk to Blaisdell Fortuna to Yuma Phoenix Yard to 2 M E Crag 2 M W Gillespie to Wellton	Blaisdell to Fortuna 2 M E Crag to 2 M W Gillespie	Kim to Mohawk
DES-1, 2, 3, 4, 5, 6, 7	1000 to 1022	....	....	....	....	....	....
DES-100 to 107	1300 to 1395	....	....	1600	....	....	....
E-23	1500 and 1502	1950	2300	1400	3300	2300	1600
M-4	1617 to 1713	2550	2900	1900	4300	2900	2100
M-6, 8	1721 to 1803, 1823 to 1825	3050	3600	2250	5000	3600	2500
M-9, 11	1804 to 1822, 1826 to 1831 and 1836	3250	3800	2400	5300	3800	2650
M-11	1832 to 1835	3350	3950	2500	5500	3950	2750
T-1	2242 to 2271	2250	2600	1650	3700	2600	1800
T-8, 9	2161, 2174 and 2178	1600	1850	1150	2650	1850	1300
T-23	2301 to 2310	3200	3750	2350	5300	3750	2650
T-26	2283 to 2299	2800	3250	2050	4700	3250	2300
T-28, 31	2311 to 2362	3550	4150	2600	5850	4150	2900
T-32, 40	2363 to 2384	3600	4200	2650	5950	4200	2950
T-36	2103	2400	2750	1750	3950	2750	1950
T-37	2105 and 2106	3100	3700	2300	5200	3700	2550
T-57, 58	2385 and 2386	2900	3400	2150	4800	3400	2400
P-1, 3, 5	2408, 2411 to 2413, 2416 to 2418, 2423, 2425 to 2435, 2437 to 2452, 2459 and 2460	2800	3300	2000	4650	3300	2250
P-1	2400, 2403 to 2407 and 2415	3050	3500	2200	5050	3500	2450
P-4	2401, 2402, 2409, 2410, 2414, 2419, 2420, 2422, 2424 and 2436	3150	3700	2300	5250	3700	2600
P-6	2453, 2454 and 2458	3600	4150	2600	5950	4150	2950
P-7	2476 and 2477	3850	4450	2800	6350	4450	3150
P-8, 10	2461 to 2474, 2478 to 2483	3950	4600	2850	6600	4600	3200
P-8, 10	2475, 2484 to 2491	4200	4850	3050	6950	4850	3400
P-11	3100 to 3109	3100	3600	2250	5150	3600	2550
P-12	3120 to 3129	4000	4700	2900	6700	4700	3300
C-5, 8, 9, 10, 26 to 29	2513 to 2599, 2624 to 2860, 3440 to 3469	3900	4600	2900	6500	4600	3250
C-15, 32	2500, 2505 to 2507	2500	2900	1850	4150	2900	2050
C-17	2510 and 2511	3100	3600	2300	5050	3600	2550
C-18	3400 to 3409	3600	4200	2650	5900	4200	2950
C-19	3410 to 3426	3750	4350	2750	6150	4350	3100
TW-1	2900 to 2913	3000	3450	2200	4900	3450	2450
TW-2, 3	2932 to 2952	2400	2750	1750	3950	2750	1950
TW-4, 6	2926 to 2931 and 2957	2250	2650	1650	3750	2650	1850
TW-8	2914 to 2923	3300	3850	2450	5450	3850	2700
A-3	3029	2250	2650	1650	3800	2650	1850
A-3	3025, 3036, 3052 and 3057	2350	2750	1700	4000	2750	1900
A-6	3000 to 3003	2750	3250	2000	4650	3250	2250
Mk-2, 4	3201 to 3240	4500	5200	3300	7300	5200	3600
Mk-5, 6	3241 to 3277	5000	5750	3600	8100	5750	4000
Mk-7, 8, 9	3300 to 3324	5500	6350	4000	8900	6350	4500
Mk-10	3295	4200	4900	3100	6900	4900	3450
Mk-11	3297 and 3298	4050	4700	3000	6650	4700	3350
F-1	3600 to 3652	5700	6700	4200	9300	6700	4700
F-3	3653 to 3667	6500	7600	4800	10800	7600	5400
F-4, 5	3668 to 3769	6700	8000	5000	11500	8000	5600
AM-2	3900 to 3911	6550	7550	4800	10700	7550	5350
MM-3	3930 and 3931	7600	8800	5600	12500	8800	6200
AC-1, 2, 3	4000 to 4048	7900	9150	5850	12950	9150	6500
AC-4, 5	4100 to 4125	10300	11950	7650	14000	11950	8500
AC-6 to 12	3800 to 3811, 4126 to 4294	10500	12000	8000	14000	12000	8800
Mt-1, 3, 4, 5	4300 to 4376	5400	6400	3850	9000	6400	4350
Mt-2	4385 to 4390	5600	6600	4000	9300	6600	4500
GS-1, 2	4400 to 4415	5650	6600	4100	9450	6600	4600
GS-3, 4, 5, 6	4416 to 4469	6000	7000	4300	9700	7000	4800
SP-1, 2, 3	5000 to 5048	7600	8800	5600	12500	8800	6200
Allowance for Empty and Underloaded Cars	Less than 45 Ms.	6	6	6	6	6	6
	45 Ms to 55 Ms	3	3	3	3	3	3
	More than 55 Ms.	0	0	0	0	0	0

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

RULES 10 (G) and 10 (H). On No. 1 and No. 2 track between Park Ave., Tucson, and Polvo, signals will be placed on left of track in direction of movement.

RULE 10 (J). Slow board to left of track eastward at MP 974.8 reads 65-40.

RULE 14 (d). As specified below, — — — — o sounds of whistle will be indication that flagman may return from west as prescribed by Rule 99:
Phoenix Yard—Kendall, Trains on Second Main Track.
Normal Jct., Trains on Creamery Branch.
Picacho Jct., Trains on Phoenix Line.

RULE 14 (e). As specified below, — — — — — — sounds of whistle will be indication that flagman may return from east as prescribed by Rule 99:
Kendall—Phoenix Yard, Trains on Second Main Track.
Tempe, Trains on Creamery Branch.
Tempe Jct., Trains on Tempe Branch.
McQueen, Trains on Christmas Branch.
T&NRR Jct., Trains on Nogales Branch.

RULE 21 (C). At Phoenix, Gila and Tucson, incoming engines may display indicators until arrival at roundhouse.

RULE 83. Identification may be made on double track between Stockham and Tucson; Phoenix and Phoenix Yard; to be applied at end of double track; and on second main track between Phoenix Yard and Kendall, to be applied at Kendall. Reduce speed sufficiently to permit identification and Rule 14 (k) will apply.

RULE 83 (A). At the following stations, only trains indicated will register:
Phoenix. First-class trains, except No. 370.
Operator, Phoenix Yard, will report arrival and departure of No. 370 to operator, Phoenix, who will enter on registers and verify by repeating registration.

RULE 83 (B). At open train-order offices trains may register by ticket as follows:
Phoenix Yard. First-class trains, except No. 370.
Phoenix. . .Nos. 1, 2, 3, 4, 39 and 40.

RULE 93. Yard limits in which the provisions of Rule 93 will apply are established at the following points:

West MP		East MP
900.96	Phoenix	908.79
914.33	Tempe	915.25
	" (Creamery Br.)	915.55
920.45	Mesa	922.88
979.23	Picacho Jct.	938.16
936.11	" (Gila Line).	
981.96	Tucson (No. 2 Track)	989.00
	" (No. 1 Track—Rio Grande Div.)	988.09
	" (Nogales Br.)	987.42
854.20	Gila	857.70
917.32 ~~917.78~~	Casa Grande	920.05
986.84	Ray Jct.	988.72
998.80	Hayden Jct.	1004.90
1046.37	Nogales	1049.89

RULE 97. Extra trains must not run via Creamery Branch unless train order so specifies.

RULE D-97 (A). Will apply between Phoenix and Phoenix Yard.

RULE 99. First-class trains must move with caution on passenger tracks at Phoenix, and passenger tracks 1, 2 and 3 at Tucson, and trains standing on these tracks need not protect against following first-class trains, but must comply with Rule 99 (A).

RULE 99 (C). Will apply as follows:
Christmas Branch between McQueen and Hayden Jct.

RULE 103 (A). A flagman must precede all movements over:
Tovrea, Washington St.
Tempe (Creamery Branch), Mill Ave. and 8th St.
Naviska, U. S. Highway 84.
Tucson, West Congress St.,
" South 6th Ave.,
" Simpson St.
Sahuarita, Nogales Highway.
Nogales, Court and Park Sts.

RULE 103 (B). Back-up hose must be used when making back up movements with cars, between Hayden Jct. and Hayden Mills, and between North and South yards and/or P. F. E. yard, Tucson.

Back-up hose must be used on leading car when shoving cars on Government tracks at Airports at Naviska and Higley, or on Eagle Picher Spur at Sahuarita.

RULE 104. Normal position of rigid switches at the end of double track and at junctions, is as follows:

Phoenix	Switch in eastward main track, immediately west of First Avenue, Phoenix, from main track to eastward main track.
Phoenix	West end double track, for westward track.
Kendall	Second main track, for first main track.
Picacho Jct.	Phoenix line, for Gila line. Operators will handle switches to and from Phoenix line, also for movements through crossovers, and west switches of north and south sidings.
Magma	Magma-Arizona RR main track, for back track.
McQueen	Christmas Br., for Phoenix line.
Ray Jct.	KCCRR main track, for yard track.
Hayden Jct.	Christmas line, for KCCRR line.
Tucson	Nogales Br., via Shop Yard, for Track No. 1.
Tempe	Creamery Br., for Phoenix line.
Normal Jct.	Creamery Br., for Phoenix line.
Tempe Jct.	Tempe Br., for Phoenix line.
T&NRR Jct.	T&NRR wye track, for Track No. 1.

DERAILS IN MAIN TRACK:

Christmas, 250 feet east of west switch.
Nogales, 221 feet west of west switch, may be trailed through by eastward trains.

RULE 105. Following tracks are designated for use as sidings:

Mesa	Track south of main track.
Red Rock	Track north of main track, for eastward trains; Track south of main track, for westward trains.
Jaynes	Track north of main track, for westward trains; Track south of main track, for eastward trains.

RULE 221. Phoenix is train-order office for first-class trains, except No. 370.

Trains must obtain clearance before leaving Tempe on Creamery Branch.

RULE D-251. Applies to the following tracks:
Both tracks between Phoenix and Phoenix Yard.

Track No. 1 and westward track from PFE yard Tucson, to Stockham. Extra trains and engines must receive proceed signal from yardman (white flag by day, green light by night) before leaving PFE yard, and before passing Park Ave., Signal 9843, and Sixth Ave., but this does not authorize trains or engines to pass Signal 9853 indicating "stop."

RULE 505. AUTOMATIC BLOCK SYSTEM

Phoenix. Main track has no block signal protection between Signal 9061 and end of double track; and double track has no block signal protection from west end to Signal 9064.

Picacho Jct. Upper unit in Signal 9377 governs movement on main track; Middle unit for north siding; Lower unit for south siding. Signal 9374 will require a two-minute interval to clear after switch on north siding is lined for movement to main track if it is desired to make an eastward movement from north siding ahead of eastward train on main track or eastward train occupying approach circuit on south siding.

Tucson: Passenger tracks 1, 2 and 3 between end of double track at MP 983.66 and Signal 9838 on Track No. 2 have no block signal control.

Westward trains must not pass east crossover switch opposite Signal 9838, just east of Tucson yard office without proceed signal from yardman, (white flag by day, green light by night) unless this switch is lined for movement on Passenger track 1.

Trains and engines finding Signal 9843 indicating "stop" may proceed into passenger tracks 2 or 3 if switches are properly lined and proceed signal from yardman (white flag by day, green light by night) is received, but must move with caution, not exceeding 12 MPH.

Westward freight trains must receive proceed signal from yardman (white flag by day, green light by night) before passing Signal 9875, and at first crossover switch west of Signal 9851.

Eastward freight trains, after passing Sixth Ave. tower and before entering freight yard, must receive proceed signal from yardman (white flag by day, green light by night).

PUSH BUTTONS

Push button and light on side of relay case on Signals P-9376 and P-9378 at Picacho Jct.; P-9776 and P-9778 at Jaynes.

RULE 510. The following block signals equipped with triangular number plate displaying the letter "P", have included in their control limits some special protective device:

Eastward Signals	Protection	Westward Signals
P- 9052	Spring switch, west end passenger lead, Phoenix..	
	Spring switch, east end double track, Phoenix Yard	P- 9075
P- 9376 P- 9378	Spring switch, east end south siding, Picacho Jct..	P- 9377
	Spring switch, east end siding, Ocatilla..........	P- 9411
	Spring switch, east end siding, Wymola..........	P- 9445
	Spring switch east end eastward siding, Red Rock.	P- 9521
	Spring switch, east end siding, Naviska..........	P- 9587
	Spring switch, east end siding, Rillito...........	P- 9673
	Spring switch, east end siding, Cortaro..........	P- 9725
P- 9776 P- 9778	Spring switch, east end eastward siding, Jaynes..	P- 9777
P- 9810	Spring switch, end double track, Stockham.......	P- 9813

RULE 516. Overlap posts:

McQueen.........	Middle of Siding	Westward trains.
Papago.........	Middle of Siding	Eastward trains.
	Middle of Siding	Westward trains.
Cortaro.........	Middle of Siding	Westward trains.

RULE 535. **SPRING SWITCHES**

Spring switches equipped with facing point locks are located as follows, and speed indicated must not be exceeded while trailing through the switches:

Location		Normal Position	MPH
Picacho Jct...	East end south siding..........	Main track.....	25
Ocatilla......	East end siding................	Main track.....	25
Wymola......	East end siding................	Main track.....	25
Red Rock.....	East end eastward siding........	Main track.....	25
Naviska......	East end siding................	Main track.....	25
Rillito.......	East end siding................	Main track.....	25
Cortaro......	East end siding................	Main track.....	25
Jaynes.......	East end eastward siding........	Main track.....	25
Stockham....	End double track..............	Eastward track.	35

Spring switches not equipped with facing point locks are located as follows, and speed indicated must not be exceeded while passing over the switches in facing movement, or in trailing through them:

Location		Normal Position	MPH
Phoenix.........	Main track at passenger lead..................	Passenger lead.....	15
Phoenix Yard...	East end double track.....	Westward track....	15

Spring switches are also located on engine leads at Tucson; and on stem of wye at Estrella, and in main track at Nogales 221 feet west of west switch.

RULE 605. **INTERLOCKING**

Picacho Jct. Limits extend from eastward SA signals 300 ft. west of station on Phoenix line and 730 ft. west of station on Gila line, to westward SA signals 400 ft. east of station on north siding, 700 ft. east of station on main track, and 560 ft. east of station on south siding. North and south sidings are in automatic block system.

Tucson, Sixth Ave.: Limits extend from point opposite Signal 9835 on both main tracks, to end of double track, and on passenger track 1 to dwarf signal 7 feet west of west switch of passenger track 2, and on freight lead to dwarf signal 10 feet east of Sixth Ave. tower, and on middle track to dwarf signal 230 feet west of east switch, and on Independent Ice lead to dwarf signal 240 feet west of Sixth Ave. tower.

Signals prescribed by Rule 628 may be given from tower window.

Whistle signals:

Eastward passenger trains approaching tower o — o.

Eastward freight trains approaching tower — o —.

Independent Ice lead to westward track —.

RULE 705. **LETTER TYPE INDICATORS**

Indicators located as follows:

Illuminated Letter	On Signal	Approaching	Authorizes and requires movement as follows:
M.........	9316.....	Eloy............	Proceed to east end siding.
S..........	9316.....	Eloy............	Enter siding.
M.........	9349.....	Eloy............	Proceed to west end siding.
S..........	9349.....	Eloy............	Enter siding.
M.........	9385.....	Picacho Jct.....	Proceed to train-order office.
SS........	9385.....	Picacho Jct.....	Enter south siding.
NS........	9385.....	Picacho Jct.....	Enter north siding.

GENERAL REGULATIONS

RULE 824. Instructions for setting hand brakes:

Phoenix Yard:	Freight trains.....	Two brakes on west end, Two brakes on east end.
Tucson:	Passenger trains.......	Two brakes on west end, Two brakes on east end.
	Freight trains........	Fifteen brakes on west end, Ten brakes on east end.
Tucson, PFE Yard:	Freight trains..	Fifteen brakes on west end, Ten brakes on east end.

At Tucson hand brakes on passenger trains are to be set after engine is spotted for oil. If necessary to detach engine after these hand brakes have been released, employe before detaching engine must see that sufficient hand brakes have again been set.

Hand brakes must be securely set on all cars left at Eagle-Picher plant, Sahuarita. Cars must not be left west of derail.

RULE 825. Cars or engines must not be set out on siding at Dock.

RULE 827. **TRAIN INSPECTION**

Freight trains must be inspected at each water stop. When conditions are favorable, and in the judgment of conductor and engineer it is safe to do so, and when additional stops can thereby be avoided, freight trains may run between water stops without stopping for inspection, provided the distance is not over 60 miles, except freight trains and light engines may run between Tucson and Maricopa for inspection. This does not relieve trainmen from making inspection when stops permit, or whenever it is necessary in the judgment of conductor or engineer. On branch lines distance of 40 miles must not be exceeded.

AIR BRAKE RULES

RULE 17. One retainer for each 120 Ms must be turned up from Eagle-Picher plant to Santa Cruz River bridge, on spur from Sahuarita.

FREIGHT TRAINS

RULE 25. Freight trains may pass Estrella westward without stopping for purpose of rear end air test if proceed signal is given from rear by trainmen, after complying with Air Brake Rule 4, and air gage indicates required air brake pressure. Speed approaching summit must not exceed 15 MPH.

If proceed signal is not given or received, train must stop and rear end air test be made.

Air brakes must be used, and rear end test made on all movements on Eagle-Picher spur, Sahaurita.

PASSENGER TRAINS

RULE 39. Incoming passenger enginemen will leave automatic air brakes set on trains at Tucson and Phoenix after final stop has been made.

Outgoing enginemen will release brakes on signal from carmen, this signal to be given only after all switching has been done.

MISCELLANEOUS

1. Casa Grande, Florence, Mesa, Amado and Hayden Jct., water for engine purposes is treated and must not be taken for domestic use until treater has been shut off.

Maricopa, eastward and westward freight trains take water, and if necessary, fill water car.

Open sprinklers on engines so equipped while passing over following bridges:

Salt River	913.93
Second Gila River	959.13
Rillito Creek	975.95

5. Tovrea, entrance to Tovrea Packing Co. plant is protected by gates, which must be kept closed and locked when not in use. Look out for rubbish and material alongside tracks around plant.

Hayden, entrance to Kennecott Copper Corp'n plant is protected by gate, which must be closed and locked at night.

Coolidge, gate at entrance to Indian Service spur must be kept closed and locked when not in use.

Tucson, PFE yard, look out for ice and rubbish alongside PFE tracks.

10. Engines must not use spur at Burns.

Engines listed must not operate on tracks shown below:

Class of Engine		Restricted Tracks
Engines over 210,000 lbs. on drivers	Tempe	Tempe Milling Co. spur; Phoenix Mill spur; Gravel pit spur; Tracks 2 and 3.
Engines over 210,000 lbs. on drivers	Mesa	McKellips spur; Standard Oil spur; Texas Oil spur; Shell Oil spur; Independent Cotton and Oil spur; Mutual Cotton Oil spur; Union Oil spur; Mesa Milling Co.
Mk-Mt-GS-F-SP-AM-MM-AC	Kendall	River track east of spur.
"	Magma	Spur.
"	Creamery Br.	All spurs.
"	Creamery	Track east of Creamery plant.
Engines over 210,000 lbs. on drivers	Tempe Br.	All Sidings and spurs.
Mt-Mk-7-8-9-GS-F-SP-AM-MM-AC	Creamery Br.	Main track.
"	Tempe Br.	Main track.
All	Sahuarita	Across Eagle-Picher ore bins.

Trains with engines too large to turn on wye at Nogales (larger than C class) must turn on wye at Calabasas on eastward trip.

Load limit (car and contents):

Phoenix-Tucson	240,000 pounds
Gila-Picacho Jct.	240,000 pounds
McQueen-Christmas	210,000 pounds
Tempe-Normal Jct. via Creamery	210,000 pounds
Tempe Jct.-West Chandler	210,000 pounds
Tucson-Nogales	210,000 pounds
Yuma-Gadsden (YVRR)	169,000 pounds

Unless authorized by Superintendent, heavier loads must not be handled.

LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT STANDARD CLEARANCE ON MAIN TRACK AND SIDINGS

Mile Post	Location	Description	
		PHOENIX - TUCSON	
914.0		Salt River bridge	Side
959.3		Gila River bridge	Side
975.95		Rillito Creek bridge	Side
983.9		Car repair shed	Side
984.4	Tucson	Base of Signal 9844	Side
		CHRISTMAS BRANCH	
963.96		Rock cut	Side
964.1		Rock cut	Side
965.56		Rock cut	Side
971.30 to 971.77		Rock cuts	Side
972.4		Tunnel No. 1	Side and Overhead
972.5		Gila River bridge	Side
973.0		Rock cut	Side
973.04		Rock cut	Side
973.07		Rock cut	Side
976.0 to 977.0		Rock cuts	Side
980.0 to 982.0		Rock cuts	Side
983.5		Rock cut	Side
985.3		Gila River bridge	Side
985.5		Rock cut	Side
987.8	Ray Jct.	Water tank and spout	Side
988.3		Rock cut	Side
988.5		Tunnel No. 2	Side and Overhead
990.0		Tunnel No. 3	Side and Overhead
992.3		Rock cut	Side
997.4		Rock cut	Side
998.8	Hayden Jct.	Water column	Side
1006.5		Rock cut	Side
1009.2		Tunnel No. 4	Side and Overhead
		NOGALES BRANCH	
988.3	Tucson	Loading chute	Side

SPEED RESTRICTIONS

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS	With Caution Not Exceeding MPH
Through sidings, yard and other side-tracks, crossovers, turnouts and slip-switches, except:	15
On PFE yard tracks 1 to 6 inc., Tucson	10
On Government tracks at Naviska and Higley airports.	10
" (with engine backing).	5
On sidings on Nogales Branch	8
On Calabasas wye	10
On Eagle-Picher spur, Sahuarita	10
" (with engine backing).	5
Through any crossover, turnout or slip-switch with engine backing	10

SPEED RESTRICTIONS: Maximum speed of trains with engines of various classes is shown below. Trains with engines not listed must not exceed 35 MPH. Speed must be further restricted as required by slow boards, and may be exceeded only as authorized by special instructions herein, or by timetable bulletin.

Page No.	TERRITORY	WITH TRAIN—ENGINE RUNNING FORWARD										LIGHT ENGINE RUNNING FORWARD				ENGINE BACKING WITH TRAIN OR LIGHT	
		PASSENGER								*FREIGHT AND MIXED							
		P-8 (if CCB*) P-7-10-12 GS Mt	E A P-1-3-4-5-6-11 P-8 (if not CCB*)	T-26-32-37-40	AC-4-5-7-8-9-10-11-12 AC-6 (if CCB*)	T-1-8-9-23-28-31-36-57-58 Mk-5-6-7-8-9 F (if CCB*) SP	M AM-2	C-2-4-5-8-9-10-18-19-26-27-28-29 Mk-2-4 TW F (if not CCB*) AC-1-2-3-6 (if not CCB*)	C-15-17-32 Mk-10-11 MM-3	With no Restricted Cars (see note)	With Restricted Cars (see note)	E P A Mt GS	T-26-32-37-40 F (if CCB*)	M T-1-8-9-23-28-31-36-57-58 C-2-4-5-8-9-10-18-19-26-27-28-29 Mk-5-6-7-8-9 F (if not CCB*) SP	C-15-17-32 TW Mk-2-4-10-11 AC AM-2 MM-3	E A T P C TW	Mk F Mt GS SP	M AC AM-2 MM-3
	COLUMN:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
6, 7, 8	Between Phoenix and Picacho Jct., except	70	65	60	55	50	45	40	35	50	40	45	40	35	30	30	25
	MP 904.77-MP 907.91	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
	MP 907.91-MP 908.79 (yard limit)	40	40	40	40	40	40	40	35	25	25	40	40	35	30	30	25
	MP 908.79-MP 912.74	50	50	50	50	50	40	40	35	35	35	40	40	35	30	30	25
	MP 912.74-MP 913.77 (Tempe)	40	40	40	40	40	40	40	35	25	25	40	40	35	30	30	25
	*MP 913.77-MP 915.31 (Tempe city limits)	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
	MP 915.31-MP 915.79	40	40	40	40	40	40	40	35	25	25	40	40	35	30	30	25
	MP 915.79-MP 920.45	50	50	50	50	50	40	40	35	35	35	40	40	35	30	30	25
	MP 920.45-MP 921.10 (west switch Mesa)	40	40	40	40	40	40	40	35	25	25	40	40	35	30	30	25
	MP 921.10-MP 922.07 (east switch Mesa)	25	25	25	25	25	25	25	25	20	20	25	25	25	25	25	20
	MP 922.07-MP 923.23 (east yard limit Mesa)	40	40	40	40	40	40	40	35	25	25	40	40	35	30	30	25
	MP 923.23-MP 929.10 (Chandler)	50	50	50	50	50	45	40	35	35	35	40	40	35	30	30	25
	*MP 929.10-MP 929.92 (east switch Chandler)	40	40	40	40	40	40	40	35	35	35	40	40	35	30	30	25
	MP 929.92-MP 946.80	50	50	50	50	50	40	40	35	35	35	45	40	35	30	30	25
	MP 946.80-MP 972.35	60	60	60	55	50	45	40	35	50	40	45	40	35	30	30	25
	MP 979.32-MP 979.70 (junction switch Picacho Jct.)	25	25	25	25	25	25	25	25	20	20	25	25	25	25	20	20
6, 7, 8	Between Picacho Jct. and Tucson, except	70	65	60	55	50	45	40	35	50	40	45	40	35	30	30	25
	MP 936.70-MP 936.82 (Picacho Jct.)	25	25	25	25	25	25	25	25	20	20	25	25	25	25	20	20
	MP 975.61-MP 975.95 (Rillito Creek bridge)	65	65	60	55	50	45	40	35	40	40	45	40	35	30	30	25
	MP 981.91-MP 982.73	40	40	40	40	40	40	40	35	30	30	20	20	20	20	20	20
	MP 982.73-MP 985.31 (Tucson)	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
9	Between Gila and Picacho Jct., except	70	65	60	55	50	45	40	35	50	40	45	40	35	30	30	25
	MP 854.97-MP 856.80 (Gila)	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	25
	MP 856.80-MP 866.98	65	65	60	55	50	45	40	35	40	40	45	40	35	30	30	25
	MP 866.98-MP 867.85	50	50	50	50	50	45	40	35	35	35	45	40	35	30	30	25
	MP 867.85-MP 870.12	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	25
	MP 870.12-MP 874.48 (Estrella)	50	50	50	50	50	45	40	35	35	35	45	40	35	30	30	25
	MP 874.48-MP 886.36	65	65	60	55	50	45	40	35	40	40	45	40	35	30	30	25
	MP 886.36-MP 898.00	50	50	50	50	50	45	40	35	35	35	45	40	35	30	30	25
	*MP 918.40-MP 919.24 (Casa Grande city limits)	40	40	40	40	40	40	40	35	40	40	40	40	35	30	30	20
	MP 936.55-MP 936.70 (Picacho Jct.)	25	25	25	25	25	25	25	25	20	20	25	25	25	25	20	20
6, 7, 8	Between Phoenix Yard and Kendall on second main track, except	.....	.....	.....	.....	.....	.....	.....	.....	25	25	25	25	25	25	25	25
	MP 911.01-MP 911.38	.....	.....	.....	.....	.....	.....	.....	.....	20	20	20	20	20	20	20	20

*Regulated by city ordinance.

*Freight and mixed trains with an engine listed in columns 6, 7 or 8 must not exceed maximum speed permitted the same engine when handling passenger train.

(Note) **RESTRICTED CARS:** Twin or multiple loads; cars of excess height or width; loads of excess height, width or weight; any equipment listed under "Maximum Speed permitted with Certain Equipment"; and cars with arch-bar trucks.

SPEED RESTRICTIONS: Maximum speed of trains is shown below. Speed must be further restricted as required by slow boards, and may be exceeded only as authorized by special instructions herein, or by timetable bulletin.

Page No.	TERRITORY	PASSENGER	FREIGHT AND MIXED	LIGHT ENGINE RUNNING FORWARD	ENGINE BACKING WITH TRAIN OR LIGHT
10	Between McQueen and Christmas, except	30	30	30	20
	MP 923.89-MP 924.08	25	25	25	20
	MP 955.93-MP 956.07	25	25	25	20
	MP 964.28-MP 964.54	20	20	20	20
	MP 968.79-MP 988.24	15	15	15	15
	MP 988.24-MP 999.53	25	25	25	20
	MP 999.53-MP 1000.64 (Hayden Jct.)	15	15	15	15
	MP 1000.64-Christmas	10	10	10	10
10	Between Tempe and Normal Jct. via Creamery	20	20	20	20
10	Between Tempe Jct. and West Chandler	20	20	20	20
11	Between Tucson and Nogales, except	35	25	20	20
	MP 984.04-MP 985.81 (Tucson city limits)	15	15	15	15
	MP 985.81-MP 987.42 (Tucson yard limits)	20	20	20	20
	MP 987.42-MP 1039.80 with Mk or F-1 class engine	20	20	20	20
	MP 1039.80-MP 1046.37 with Mk or F-1 class engine	25	25	25	20
	*Within Nogales yard limits	20	20	20	20

*Regulated by city ordinance.

PICACHO SUBDIVISION

RATING OF ENGINES—In Units of 1000 Lbs. (Ms)

NOMINAL CLASS	ENGINE NUMBERS	Maricopa to Tucson Phoenix to Picacho Jct.	Gila to Estrella	Estrella to Maricopa Tucson to Maricopa Estrella to Gila Picacho Jct. to Phoenix	Maricopa to Estrella	McQueen to Christmas	Christmas to McQueen	Tucson to Calabasas	Calabasas to Nogales	Nogales to Tucson
DES-1, 2, 3, 4, 5, 6, 7	1000 to 1022	....	....	....	....	....	....	....	....	....
DES-100 to 107	1300 to 1395	....	1600	....	....	....	....	....	....	....
E-23	1500 and 1502	2300	1400	3300	2300	2450	2950	1550	1450	2550
M-4	1617 to 1713	2900	1900	4300	2900	3150	3750	2100	1950	3400
M-6, 8	1721 to 1803, 1823 to 1825	3600	2250	5000	3600	3800	4550	2500	2300	4000
M-9, 11	1804 to 1822, 1826 to 1831 and 1836	3800	2400	5300	3800	4100	4900	2650	2450	4200
M-11	1832 to 1835	3950	2500	5500	3950	4250	5100	2750	2550	4400
T-1	2242 to 2271	2600	1650	3700	2600	2750	3300	1800	1650	2900
T-8, 9	2161, 2174 and 2178	1850	1150	2650	1850	2000	2400	1250	1150	2050
T-23	2301 to 2310	3750	2350	5300	3750	4000	4750	2600	2400	4200
T-26	2283 to 2299	3250	2050	4700	3250	3500	4200	2250	2100	3650
T-28, 31	2311 to 2362	4150	2600	5850	4150	....	....	....	....	....
T-32, 40	2363 to 2384	4200	2650	5950	4200	....	....	....	....	....
T-36	2103	2750	1750	3950	2750	2950	3550	1950	1800	3100
T-37	2105 and 2106	3700	2300	5200	3700	3700	4400	3100	2350	3700
T-57, 58	2385 and 2386	3400	2150	4800	3400	....	....	....	....	....
P-1, 3, 5	2408, 2411 to 2413, 2416 to 2418, 2423, 2425 to 2435, 2437 to 2452, 2459 and 2460	3300	2000	4650	3300	....	....	....	....	....
P-1	2400, 2403 to 2407 and 2415	3500	2200	5050	3500	....	....	....	....	....
P-4	2401, 2402, 2409, 2410, 2414, 2419, 2420, 2422, 2424 and 2436	3700	2300	5250	3700	....	....	....	....	....
P-6	2453, 2454 and 2458	4150	2600	5950	4150	....	....	....	....	....
P-7	2476 and 2477	4450	2800	6350	4450	....	....	....	....	....
P-8, 10	2461 to 2474, 2478 to 2483	4600	2850	6600	4600	....	....	....	....	....
P-8, 10	2475, 2484 to 2491	4850	3050	6950	4850	....	....	....	....	....
P-11	3100 to 3109	3600	2250	5150	3600	3850	4650	2500	2300	4050
P-12	3120 to 3129	4700	2900	6700	4700	....	....	....	....	....
C-5, 8, 9, 10, 26 to 29	2513 to 2599, 2624 to 2860, 3440 to 3469	4600	2900	6500	4600	4700	5600	3750	3000	5100
C-15, 32	2500, 2505 to 2507	2900	1850	4150	2900	3100	3700	2050	1850	3250
C-17	2510 and 2511	3600	2300	5050	3600	3800	4550	2500	2300	4000
C-18	3400 to 3409	4200	2650	5900	4200	4450	5300	2950	2700	4650
C-19	3410 to 3426	4350	2750	6150	4350	4650	5550	3050	2800	4850
TW-1	2900 to 2913	3450	2200	4900	3450	3700	4400	2400	2250	3850
TW-2, 3	2932 to 2952	2750	1750	3950	2750	2950	3550	2300	2050	3150
TW-4, 6	2926 to 2931 and 2957	2650	1650	3750	2650	2800	3350	1800	1700	2950
TW-8	2914 to 2923	3850	2450	5450	3850	4050	4850	2650	2450	4300
A-3	3029	2650	1650	3800	2650	....	....	....	....	....
A-3	3025, 3036, 3052 and 3057	2750	1700	4000	2750	....	....	....	....	....
A-6	3000 to 3003	3250	2000	4650	3250	....	....	....	....	....
Mk-2, 4	3201 to 3240	5200	3300	7300	5200	*5650	*6750	4300	3300	5900
Mk-5, 6	3241 to 3277	5750	3600	8100	5750	*6100	*7300	4600	3700	6500
Mk-7, 8, 9	3300 to 3324	6350	4000	8900	6350	....	....	....	....	....
Mk-10	3295	4900	3100	6900	4900	....	....	....	....	....
Mk-11	3297 and 3298	4700	3000	6650	4700	....	....	....	....	....
F-1	3600 to 3652	6700	4200	9300	6700	....	....	4600	4250	7350
F-3	3653 to 3667	7600	4800	10800	7600	....	....	....	....	....
F-4, 5	3668 to 3769	8000	5000	11500	8000	....	....	....	....	....
AM-2	3900 to 3911	7550	4800	10700	7550	....	....	....	....	....
MM-3	3930 and 3931	8800	5600	12500	8800	....	....	....	....	....
AC-1, 2, 3	4000 to 4048	9150	5850	12950	9150	....	....	....	....	....
AC-4, 5	4100 to 4125	11950	7650	14000	11950	....	....	....	....	....
AC-6 to 12	3800 to 3811, 4126 to 4294	12000	8000	14000	12000	....	....	....	....	....
Mt-1, 3, 4, 5	4300 to 4376	6400	3850	9000	6400	....	....	....	....	....
Mt-2	4385 to 4390	6600	4000	9300	6600	....	....	....	....	....
GS-1, 2	4400 to 4415	6600	4100	9450	6600	....	....	....	....	....
GS-3, 4, 5, 6	4416 to 4469	7000	4300	9700	7000	....	....	....	....	....
SP-1, 2, 3	5000 to 5048	8800	5600	12500	8800	....	....	....	....	....
Allowance for Empty and Underloaded Cars	Less than 45 Ms	6	6	6	6	6	6	6	6	6
	45 Ms to 55 Ms	3	3	3	3	3	3	3	3	3
	More than 55 Ms	0	0	0	0	0	0	0	0	0

*Engines 3201 and 3224 only permitted to operate between Hayden Jct. and Christmas.

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

RULES 10 (G) and 10 (H). On No. 1 and No. 2 track between Park Ave., Tucson, and Polvo, signals will be placed on left of track in direction of movement.

RULE 14 (e). As specified below, — — — — — — sounds of whistle will be indication that flagman may return from east as prescribed by Rule 99:

Mescal, Trains on Rio Grande Division.
Bowie, Trains on Globe Branch.

RULE 83 (B). At open train-order offices trains may register by ticket as follows:

Mescal	All trains
Bowie	All trains except on Globe Branch

RULE 93. Yard limits in which the provisions of Rule 93 will apply are established at the following points:

West MP		East MP
981.96	Tucson (No. 2 Track)	989.00
	" (No. 1 Track—Rio Grande Div.)	988.09
	" (Nogales Br.)	987.42
1021.24	Mescal (R. G. Div.)	1023.13
1022.89	" (Tucson Div.)	1024.13
1031.60	Benson	1034.01
1097.10	Bowie	1100.00
	" (Globe Br.)	1099.50
1136.65	Safford	1138.34
1218.70	Globe	1223.22
1229.82	Miami	1234.20
1147.19	Lordsburg	1151.38

Tucson. Trains moving against current of traffic on westward main track between end of double track, MP 984.12, Tucson and crossover between main tracks just east of Nogales Branch switch must stop before fouling inbound engine lead switch, and proceed only on signal from yardman (white flag by day, green light by night).

RULE 99. First-class trains must move with caution on passenger tracks 1, 2 and 3 at Tucson, and trains standing on these tracks need not protect against following first-class trains, but must comply with Rule 99 (A).

RULE 99 (C). Will apply as follows:
Globe Branch between Bowie and Globe.

RULE 103 (A). A flagman must precede all movements over:
Globe, Hackney St. and eastward over Murphy St.
Miami, Latham Blvd., Adonis Ave. and Miami Copper Co. highway crossing.

RULE 103 (B). Back-up hose must be used when making back-up movements with cars, between North and South yards and/or PFE yard, Tucson.

Back-up hose must be used on leading car when shoving cars on Government tracks at Airport at Wilmot.

RULE 104. Normal position of rigid switches at the end of double track and at junctions, is as follows:

Bowie	Globe Br., for Eastward siding.
T&NRR Jct.	T&NRR wye track, for Track No. 1.
Benson	Benson-Fairbank Br., for helper lead.

RULE 105. Following tracks are designated for use as sidings:

San Carlos	Track north of main track, opposite station.
Benson	Track north of main track, for eastward trains; Track south of main track, for westward trains.
Dragoon	Track north of main track, for westward trains; Track south of main track, for eastward trains.
Bowie	Track north of main track from west switch to main track switch just east of station building, for eastward trains; Track north of main track from east switch to main track switch just east of station building, for westward trains.
Steins	First track north of main track, for westward trains; Second track north of main track, for eastward trains, and connects with westward siding at each end.

RULE 221. Trains must obtain clearance before leaving Bowie and Miami.

RULE D-251. Applies to the following tracks:

Track No. 1 and westward track from PFE yard Tucson, to Stockham. Extra trains and engines must receive proceed signal from yardman (white flag by day, green light by night) before leaving PFE yard, and before passing Park Ave., Signal 9843, and Sixth Ave., but this does not authorize trains or engines to pass Signal 9853 indicating "stop".

METHOD OF DISPATCHING TRAINS BETWEEN TUCSON AND MESCAL

No. 1 Track Mescal subdivision and No. 2 Track Bowie subdivision will be operated under double track rules, No. 1 Track westward track and No. 2 Track eastward track.

Limits of double track operation between Tucson and Mescal will be as follows:

Eastward—via No. 2 Track to west interlocking limit at Mescal.
Westward—via No. 1 Track from west interlocking limit at Mescal to Tucson.

RULE D-97 (A) will apply on No. 1 and No. 2 Tracks between Tucson and Mescal, except that extra trains must obtain clearance, or proper train-order signal, or permission from train dispatcher before using either track.

Trains from Bowie Subdivision moving to Mescal Subdivision, and trains on Mescal Subdivision moving through Mescal, with the same conductor and engineer operating through Mescal, may be issued train orders on one subdivision that affect their movements on either, or both subdivisions. Any such train orders issued by one division to a train on the other division must be transmitted to the other division addressed to Dispatcher before complete is given to the order addressed to the train; and such orders must be shown on clearance issued by the division on which train originates.

RULE 82 (A). Regular trains and sections of schedules authorized on Bowie or Mescal Subdivisions are authorized to assume corresponding schedules or sections of schedules on Bowie or Mescal Subdivisions at Mescal without clearance.

Westward trains may leave Mescal without clearance provided train is properly cleared by train-order signal.

RULE 83 (B). When a regular train is checked on Bowie or Mescal Subdivision, it will not be necessary to check the register at Mescal against the same train.

RULE 505. AUTOMATIC BLOCK SYSTEM

Tucson: Passenger tracks 1, 2 and 3 between end of double track at MP 983.66 and Signal 9838 on Track No. 2 have no block signal control.

Westward trains must not pass east crossover switch opposite Signal 9838, just east of Tucson yard office without proceed signal from yardman (white flag by day, green light by night), unless this switch is lined for movement on Passenger Track 1.

Trains and engines finding Signal 9843 indicating "stop" may proceed into passenger tracks 2 or 3 if switches are properly lined and proceed signal from yardman (white flag by day, green light by night) is received, but must move with caution, not exceeding 12 MPH.

Westward freight trains must receive proceed signal from yardman (white flag by day, green light by night) before passing Signal 9875, and at first crossover switch west of Signal 9851.

Tucson-Mescal: Eastward trains on No. 2 Track finding a signal indicating "stop" will apply Rule 509 (i). Westward trains moving against current of traffic on No. 2 Track finding a signal indicating "stop" between Mescal and Esmond will apply Rule 509 (J); and will have no block signal protection between Esmond and Tucson. Between Park Ave., Tucson, and Polvo, automatic signals are on the left of the track in current of traffic direction.

PUSH BUTTONS

Push button and light on side of relay case on Signals P-11245 and P-11247 at Cavot.

RULE 510. The following block signals equipped with triangular number plate displaying the letter "P", have included in their control limits some special protective device:

Eastward Signals	Protection	Westward Signals
	Spring switch, east end siding, Chamiso	P-10287
	Spring switch, east end siding, Curvo	P-10389
P-10408	Spring switch, west end siding, Sibyl	
	Spring switch, east end siding, Sibyl	P-10415
P-10436	Spring switch, west end siding, Tully	
	Spring switch, east end siding, Tully	P-10453
P-11246	Spring switch, west end siding, Cavot	P-11245 P-11247
	Spring switch, east end siding, Cavot	P-11255
P-11322	Spring switch, west end siding, Mondel	

RULE 535. SPRING SWITCHES

Spring switches equipped with facing point locks are located as follows, and speed indicated must not be exceeded while trailing through the switches:

Location		Normal Position	MPH
Chamiso	East end siding	Main track	25
Curvo	East end siding	Main track	15
Sibyl	West end siding	Main track	25
Sibyl	East end siding	Main track	25
Tully	West end siding	Main track	25
Tully	East end siding	Main track	25
Cavot	West end siding	Main track	25
Cavot	East end siding	Main track	25
Mondel	West end siding	Main track	25

Spring switches are also located on engine leads at Tucson and on stem of wye at Dragoon, San Simon and Steins.

RULE 605. INTERLOCKING

Tucson, Sixth Ave.: Limits extend from point opposite Signal 9835 on both main tracks, to end of double track, and on passenger track 1 to dwarf signal 7 feet west of west switch of passenger track 2, and on freight lead to dwarf signal 10 feet east of Sixth Ave. tower, and on middle track to dwarf signal 230 feet west of east switch, and on Independent Ice lead to dwarf signal 240 feet west of Sixth Ave. tower.

Signals prescribed by Rule 628 may be given from tower window.

Mescal: Interlocking signals of Rio Grande Division will display indication in the upper quadrant. Signal arm extending upward parallel to signal mast indicates "proceed".

Limits are between home signals at east switch of east crossover and west switch of west crossover on Rio Grande Division, and home signals at east and west ends of north and south sidings on Tucson Division. Switches are under control of signal operator, except switches leading from north siding to water and outfit spurs; from south siding to both legs of wye, and to west end of coal track. Switch and derail east end coal track are hand-thrown, but must not be used until permission is secured from signal operator. North and south sidings have no signal control between Interlocking Limit signs.

Where hand signals, as prescribed by Rule 628, cannot be seen, trains stopped will call the signal operator and secure permission to proceed; also to throw switches by hand in event the remote control appliance is inoperative.

Whistle signals:

Eastward trains to Tucson Division o o — o o.
Eastward trains to Rio Grande Division — o o o o.
Eastward trains to south siding o — o.
Eastward trains south siding to Tucson Division o o — o.
Eastward trains south siding to Rio Grande Division o — o o.
Westward trains north siding to No. 1 Track, — — o o.
Westward trains Tucson Division to No. 1 Track, o — —.
Westward trains Tucson Division to north siding o o — —.
Westward trains Rio Grande Division to No. 1 Track, — o —.
Westward trains from Rio Grande Division through east crossover and Tucson Division to No. 1 Track, o — — o.

RULE 705. LETTER TYPE INDICATORS

Indicators located as follows:

Illuminated Letter	On Signal	Approaching	Authorizes and Requires Movement as Follows
M	10024	Vail	Proceed to Pantano.
M	10112	Pantano	Proceed to Mescal.
M	11470	Lordsburg	Proceed to train-order office.
S	11470	Lordsburg	Call yard office for instructions.

GENERAL REGULATIONS

RULE 824. Instructions for setting hand brakes:

Tucson: Passenger trains........Two brakes on west end,
Two brakes on east end.
Freight trains...........Fifteen brakes on west end,
Ten brakes on east end.

Tucson, PFE Yard: Freight trains..Fifteen brakes on west end,
Ten brakes on east end.

At Tucson hand brakes on passenger trains are to be set after engine is spotted for oil. If necessary to detach engine after these hand brakes have been released, employe before detaching engine must see that sufficient hand brakes have again been set.

RULE 825. Portable rail skids are hung on posts at lower end of sidings at:

Chamiso, Fenner, Curvo, Sibyl, Cavot.

When necessary to leave cars on any of these sidings permission must first be obtained from chief train dispatcher, after which rail skid must be placed on rail and leading wheel of first car in descending direction run onto the rail skid, and hand brakes set if brakes are operative, before engine is detached. Trains picking up cars from these sidings must remove rail skid and return it to proper post and lock it in place with switch lock.

Cars or engines must not be set out on sidings at Rankin, Vail, Pantano, Tully, Lancha, Manzoro, Cochise, Drury, Raso, Alrich, Luzena, Cholla, Bawtry, Gary and Pyra.

RULE 827. TRAIN INSPECTION

Freight trains must be inspected at each water stop. When conditions are favorable, and in the judgment of conductor and engineer it is safe to do so, and when additional stops can thereby be avoided, freight trains may run between water stops without stopping for inspection, provided the distance is not over 60 miles except freight trains and light engines may run between Benson and Bowie, for inspection. This does not relieve trainmen from making inspection when stops permit, or whenever it is necessary in the judgment of conductor or engineer. On branch lines distance of 40 miles must not be exceeded, and on descending grade must stop at Cutter.

AIR BRAKE RULES

RULE 17. Retainers will be used on grades of 1.4% to 1.5% on freight trains of less than 110 Ms per operative brake when necessary in the judgment of conductor and engineer.

On freight trains averaging 110 Ms and over on grades of 1.4% to 1.5% and on all freight trains on grades of 1.5% and over, retainers will be used as follows:

Mescal to Benson	1.4% grade,	One	Retainer	for	each		150 Ms
Steins to Mondel	1.4%	"	"	"	"	"	150 Ms
Steins to Bawtry	1.4%	"	"	"	"	"	150 Ms
Sibyl to Benson	1.4%	"	"	"	"	"	150 Ms
Pinal to Globe	2%	"	"	"	"	"	120 Ms
Globe to Burch	2%	"	"	"	"	"	120 Ms
Live Oak to Miami	3%	"	"	"	"	"	100 Ms
Miami to Burch	1.4%	"	"	"	"	"	150 Ms
Pinal to Cutter	2.2%	"	"	"	"	"	120 Ms

When retainers are used, stops will be made for inspection and to permit heat of wheels to equalize, as follows:

Eastward: Chamiso.
Westward: Fenner.
Vanar.

FREIGHT TRAINS

RULE 25. Freight trains may pass:

Mescal, Eastward;
Dragoon and Steins, Westward;
Pinal, Eastward and Westward

without stopping for purpose of rear end air test if proceed signal is given from rear by trainmen, after complying with Air Brake Rule 4, and air gage indicates required air brake pressure. Speed approaching summit must not exceed 15 MPH.

If proceed signal is not given or received, train must stop and rear end air test be made.

RULE 33. The tonnage per operative brake Pinal to Burch, and Pinal to Cutter, must not exceed 120 Ms; and Live Oak to Miami, 100 Ms.

MISCELLANEOUS

1. At San Simon, water for engine purposes is treated and must not be taken for domestic use until treater is shut off.

Benson, when practicable, westward freight trains and light engines take water at columns at station, to avoid shortage in east tank.

Westward freight trains may take water at Sibyl if it will avoid stopping at Benson.

Open sprinklers on engines so equipped while passing over following bridges:

Cienega Creek 1008.05
San Pedro River 1033.65

5. Tucson, PFE yard, look out for ice and rubbish alongside PFE tracks.

Willcox, look out for bedding sand between tracks 2 and 3.

10. Engines listed must not operate on tracks shown below:

Class of Engine	Restricted Tracks
GS,Mt-2,F,SP,AM, MM and AC	Willcox..Home Gas & Fuel spur.

Load limit (car and contents):

Tucson-Lordsburg ....240,000 pounds
Bowie-Live Oak ....210,000 pounds

Unless authorized by Superintendent, heavier loads must not be handled.

11. Bowie, No. 5 track in west yard must be kept clear for through movement.

LOCATION OF OVERHEAD AND SIDE STRUCTURES NOT STANDARD CLEARANCE ON MAIN TRACK AND SIDINGS

Mile Post	Location	Description	
		TUCSON - LORDSBURG	
983.9		Car repair shed	Side
984.4	Tucson	Base of Signal 9844	Side
1008.1		Cienega Creek bridge	Side
1008.2		Rock cut	Side
1008.3		Rock cut	Side
1032.5	Benson	Water column	Side
1032.5	Benson	San Pedro River bridge	Side
1098.4	Bowie	Water column	Side
1114.2	San Simon	Water tank spout	Side
		GLOBE BRANCH	
1201.1	San Carlos	Water tank and spout	Side and Overhead
1213.5	Cutter	Water column	Side

SPEED RESTRICTIONS

SPEED RESTRICTIONS FOR OTHER THAN MAIN TRACKS	With Caution Not Exceeding MPH
Through sidings, yard and other side-tracks, crossovers, turnouts and slip-switches, except:	15
On PFE yard tracks 1 to 6 inc., Tucson	10
On Government tracks at Wilmot airport	10
“ (with engine backing)	5
Through any crossover, turnout or slip-switch with engine backing	10

SPEED RESTRICTIONS: Maximum speed of trains with engines of various classes is shown below. Trains with engines not listed must not exceed 35 MPH. Speed must be further restricted as required by slow boards, and may be exceeded only as authorized by special instructions herein, or by timetable bulletin.

Page No.	TERRITORY	WITH TRAIN — ENGINE RUNNING FORWARD										LIGHT ENGINE RUNNING FORWARD				ENGINE BACKING WITH TRAIN OR LIGHT	
		PASSENGER								*FREIGHT AND MIXED							
		P-8 (if CCB*) P-7-10-12 GS Mt	E A P-1-3-4-5-6-11 P-8 (if not CCB*)	T-26-32-37-40	AC-4-5-7-8-9-10-11-12 AC-6 (if CCB*)	T-1-8-9-23-28-31-36-57-58 Mk-5-6-7-8-9 F (if CCB*) SP	M AM-2	C-2-4-5-8-9-10-18-19-26-27-28-29 Mk-2-4, TW F (if not CCB*) AC-1-2-3-6 (if not CCB*)	C-15-17-32 Mk-10-11 MM-3	With no Restricted Cars (see note)	With Restricted Cars (see note)	E P A Mt GS	T-26-32-37-40 F(if CCB*)	M T-1-8-9-23-28-31-36-57-58 C-2-4-5-8-9-10-18-19-26-27-28-29 Mk-5-6-7-8-9 F (if not CCB*) SP	C-15-17-32 TW Mk-2-4-10-11 AC AM-2 MM-3	E A T P C TW Mk F Mt GS SP	M AC AM-2 MM-3
	COLUMN:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
12,13,14	Between Tucson and Lordsburg, except	70	65	60	55	50	45	40	35	50	40	45	40	35	30	30	25
	MP 982.73-MP 985.31	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
	MP 985.31-MP 991.00	50	50	50	50	50	45	40	35	35	35	45	40	35	30	30	25
	MP 991.00-MP 997.00	65	65	60	55	50	45	40	35	40	40	45	40	35	30	30	25
	MP 997.00-MP 1004.27	50	50	50	50	50	45	40	35	35	35	45	40	35	30	30	25
	MP 1004.27-MP 1010.36	30	30	30	30	30	30	30	30	25	25	25	25	25	25	25	25
	MP 1010.36-MP 1012.62	50	50	50	50	50	45	40	35	35	35	45	40	35	30	30	25
	MP 1012.62-MP 1014.00	30	30	30	30	30	30	30	30	25	25	25	25	25	25	25	25
	MP 1014.00-MP 1016.77	50	50	50	50	50	45	40	35	35	35	45	40	35	30	30	25
	MP 1016.77-MP 1018.08	30	30	30	30	30	30	30	30	25	25	25	25	25	25	25	25
	MP 1018.08-MP 1024.55	40	40	40	40	40	40	40	35	30	30	40	40	30	30	30	25
	MP 1024.55-MP 1026.00 (Mescal interlocking) except	50	50	50	50	50	40	40	35	35	35	45	40	35	30	30	25
	Mescal, through crossovers to R. G. Div'n	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	MP 1026.00-MP 1028.60 (east switch Camiso)	65	65	60	55	50	45	40	35	40	40	45	40	35	30	30	25
	MP 1028.60-MP 1030.86	50	50	50	50	50	45	40	35	35	35	45	40	35	30	30	25
	MP 1030.86-MP 1032.17 (Benson)	40	40	40	40	40	40	40	35	30	30	40	40	30	30	30	25
	MP 1032.17-MP 1033.48	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	25
	MP 1033.48-MP 1036.96	50	50	50	50	50	45	40	35	35	35	45	40	35	30	30	25
	MP 1036.96-MP 1040.78	30	30	30	30	30	30	30	30	25	25	25	25	25	25	25	25
	MP 1040.78-MP 1046.97	45	45	45	45	45	45	40	35	30	30	45	40	35	30	30	25
	MP 1046.97-MP 1052.36	40	40	40	40	40	40	40	35	30	30	40	40	30	30	30	25
	MP 1052.36-MP 1058.00	50	50	50	50	50	45	40	35	35	35	45	40	35	30	30	25
	MP 1058.00-MP 1074.27	65	65	60	55	50	45	40	35	40	40	45	40	35	30	30	25
	*MP 1074.27-MP 1075.28 (Willcox city limits)	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	25
	MP 1075.28-MP 1076.00	60	60	60	55	50	45	40	35	40	40	45	40	35	30	30	25
	MP 1076.00-MP 1080.00	65	65	60	55	50	45	40	35	40	40	45	40	35	30	30	25
	MP 1080.00-MP 1083.14	60	60	60	55	50	45	40	35	40	40	45	40	35	30	30	25
	MP 1083.14-MP 1096.00, except	65	65	60	55	50	45	40	35	40	40	45	40	35	30	30	25
	Eastward, over west switch, Alrich and Luzena	60	60	60	55	50	45	40	35	40	40	45	40	35	30	30	25
	MP 1096.00-MP 1099.63 (Bowie)	60	60	60	55	50	45	40	35	40	40	45	40	35	30	30	25
	MP 1099.63-MP 1121.00	60	60	60	55	50	45	40	35	35	35	45	40	35	30	30	25
	MP 1121.00-MP 1124.44	50	50	50	50	50	45	40	35	35	35	45	40	35	30	30	25
	MP 1124.44-MP 1128.68	30	30	30	30	30	30	30	30	25	25	25	25	25	25	25	25
	MP 1128.68-Lordsburg	65	65	60	55	50	45	40	35	40	40	45	40	35	30	30	25

***Freight and mixed trains with an engine listed in columns 6, 7 or 8 must not exceed maximum speed permitted the same engine when handling passenger train.**

(Note) **RESTRICTED CARS:** Twin or multiple loads; cars of excess height or width; loads of excess height, width or weight; any equipment listed under "Maximum Speed permitted with Certain Equipment"; and cars with arch-bar trucks.

SPEED RESTRICTIONS: Maximum speed of trains with engines of various classes is shown below. Trains with engines not listed must not exceed 35 MPH. Speed must be further restricted as required by slow boards, and may be exceeded only as authorized by special instructions herein, or by timetable bulletin.

Page No.	TERRITORY	PASSENGER		FREIGHT AND MIXED	LIGHT ENGINE RUNNING FORWARD		ENGINE BACKING WITH TRAIN OR LIGHT
		M-6 T-37	C-8-9-10		M T-37 C-8-9-10 Mk-5-6-7-8-9	Mk-2-4	
15	Between Bowie and Live Oak, except	35	30	30	30	30	20
	Bowie, yard limits	15	15	15	15	15	15
	Bowie, east yard limit-MP 1126.12	35	30	30	30	25	20
	MP 1126.12-MP 1126.43	30	30	30	30	25	20
	MP 1126.43-MP 1136.65	35	30	30	30	25	20
	MP 1136.65-MP 1138.34 Safford yard limits	15	15	15	15	15	15
	MP 1138.34-MP 1145.33	35	30	30	30	25	20
	*MP 1145.33-MP 1146.42 (Pima city limits)	25	25	25	25	25	20
	MP 1146.42-MP 1178.03	35	30	30	30	25	20
	MP 1178.03-MP 1178.17	30	30	25	30	25	20
	MP 1178.17-MP 1183.70	35	30	30	30	25	20
	MP 1183.70-MP 1195.00	30	30	20	20	20	20
	MP 1195.00-MP 1207.01	30	30	25	30	25	20
	MP 1207.01-MP 1217.52	35	30	30	30	25	20
	MP 1217.52-MP 1218.78	25	25	20	25	20	15
	MP 1218.78-MP 1220.59	35	30	30	30	25	20
	MP1220.59-MP1223.09 (Globe), except	15	15	15	15	15	15
	Broad Street Crossing	6	6	6	6	6	6
	MP 1223.09-MP 1231.18	20	20	20	20	20	15
	Miami yard limits	15	15	15	15	15	15
	Inspiration Jct.-Live Oak	10	10	10	10	10	10

*Regulated by City ordinance.

BOWIE SUBDIVISION

RATING OF ENGINES—In Units of 1000 Lbs. (Ms)

NOMINAL CLASS	ENGINE NUMBERS	Tucson to Mescal (No. 2 Track)	Benson to Dragoon San Simon to Steins	Mescal to Benson Dragoon to Willcox Raso to San Simon Steins to Conrad Pyra to Lordsburg	Willcox to Raso Conrad to Pyra	Lordsburg to Pyra	Pyra to Mondel Steins to San Simon Raso to 2 M E Cochise Dragoon to Benson Mescal to Tucson (No. 1 Track)	San Simon to Bowie	Bowie to Raso 2 M E Cochise to Dragoon	Mondel to Steins Benson to Mescal
DES-1, 2, 3, 4, 5, 6, 7	1000 to 1022	....	....	....	....	....	....	....	....	....
DES-100 to 107	1300 to 1395	....	....	....	....	....	....	....	....	....
E-23	1500 and 1502	1200	930	5000	1850	2050	5000	2300	1400	930
M-4	1617 to 1713	1600	1250	5000	2450	2750	5000	3100	1900	1250
M-6, 8	1721 to 1803, 1823 to 1825	1950	1500	6000	2900	3250	6000	3650	2250	1500
M-9, 11	1804 to 1822, 1826 to 1831 and 1836	2050	1600	6000	3100	3450	6000	3650	2350	1600
M-11	1832 to 1835	2150	1650	6000	3200	3550	6000	4000	2450	1650
T-1	2242 to 2271	1400	1050	5000	2100	2350	5000	2650	1600	1050
T-8, 9	2161, 2174 and 2178	990	760	5000	1500	1650	5000	1900	1150	760
T-23	2301 to 2310	2000	1550	6000	3050	3400	6000	3800	2300	1550
T-26	2283 to 2299	1750	1350	6000	2650	3000	6000	3350	2050	1350
T-28, 31	2311 to 2362	2250	1750	8000	3350	3750	8000	4200	2600	1750
T-32, 40	2363 to 2384	2300	1800	8000	3450	3800	8000	4300	2600	1800
T-36	2103	1500	1150	5000	2250	2500	5000	2800	1750	1150
T-37	2105 and 2106	2000	1550	6000	3000	3350	6000	3750	2300	1550
T-57, 58	2385 and 2386	1850	1400	6000	2750	3050	6000	3450	2100	1400
P-1, 3, 5	2408, 2411 to 2413, 2416 to 2418, 2423, 2425 to 2435, 2437 to 2452, 2459 and 2460	1800	1350	6000	2700	3050	6000	3400	2050	1350
P-1	2400, 2403 to 2407 and 2415	1850	1450	6000	2050	3200	6000	3600	2150	1450
P-4	2401, 2402, 2409, 2410, 2414, 2419, 2420, 2422, 2424 and 2436	1950	1500	6000	3000	3350	6000	3750	2250	1500
P-6	2453, 2454 and 2458	2250	1750	8000	3400	3800	8000	4250	2600	1750
P-7	2476 and 2477	2400	1850	8000	3600	4050	8000	4500	2750	1850
P-8, 10	2461 to 2474, 2478 to 2483	2450	1900	8000	3750	4150	8000	4700	2850	1900
P-8, 10	2475, 2484 to 2491	2600	2000	8000	3950	4400	8000	4950	3000	2000
P-11	3100 to 3109	1950	1500	8000	2950	3300	8000	3700	2250	1500
P-12	3120 to 3129	2600	2000	8000	3900	4350	8000	4900	3000	2000
C-5, 8, 9, 10, 26 to 29	2513 to 2599, 2624 to 2860, 3440 to 3469	2500	1950	8000	3750	4150	8000	4650	2900	1950
C-15, 32	2500, 2505 to 2507	1600	1250	5000	2350	2650	5000	2950	1800	1250
C-17	2510 and 2511	1950	1550	6000	2950	3250	6000	3650	2250	1550
C-18	3400 to 3409	2300	1800	8000	3400	3800	8000	4250	2650	1800
C-19	3410 to 3426	2400	1850	8000	3550	3950	8000	4450	2750	1850
TW-1	2900 to 2913	1900	1450	7000	2850	3150	7000	3550	2150	1450
TW-2, 3	2932 to 2952	1500	1150	7000	2250	2500	7000	2850	1750	1150
TW-4, 6	2926 to 2931 and 2957	1400	1100	7000	2150	2400	7000	2650	1650	1100
TW-8	2914 to 2923	2100	1600	7000	3150	3500	7000	3900	2400	1600
A-3	3029	1350	1050	6000	2150	2400	6000	2700	1600	1050
A-3	3025, 3036, 3052 and 3057	1450	1100	6000	2250	2500	6000	2800	1700	1100
A-6	3000 to 3003	1700	1300	6000	2600	2950	6000	3300	2000	1300
Mk-2, 4	3201 to 3240	2800	2200	8000	4250	4750	8000	5300	3250	2200
Mk-5, 6	3241 to 3277	3150	2450	8000	4700	5250	8000	5850	3650	2450
Mk-7, 8, 9	3300 to 3324	3500	2750	8000	5200	5800	8000	6500	4000	2750
Mk-10	3295	2650	2100	8000	4000	4450	8000	5000	3050	2100
Mk-11	3297 and 3298	2550	2000	8000	3850	4250	8000	4750	2950	2000
F-1	3600 to 3652	3700	2900	10000	5500	6100	10000	6850	4250	2900
F-3	3653 to 3667	4200	3300	10000	6300	7000	10000	7800	4850	3300
F-4, 5	3668 to 3769	4750	3750	10000	7100	7850	10000	8800	5450	3750
AM-2	3900 to 3911	4150	3250	10000	6200	6850	10000	7700	4750	3250
MM-3	3930 and 3931	4900	3850	10000	7300	8100	10000	9000	5600	3850
AC-1, 2, 3	4000 to 4048	5050	3950	12000	7500	8350	12000	9300	5750	3950
AC-4, 5	4100 to 4125	6550	5150	14000	9800	10850	14000	12150	7550	5150
AC-6 to 12	3800 to 3811, 4126 to 4294	7400	5500	14000	10400	11500	14000	12900	8000	5500
Mt-1, 3, 4, 5	4300 to 4376	3800	2950	10000	5650	6300	10000	7050	4350	2950
Mt-2	4385 to 4390	3550	2800	10000	5350	5950	10000	6700	4100	2800
GS-1, 2	4400 to 4415	3850	2980	10000	5850	6500	10000	7300	4450	2980
GS-3, 4, 5, 6	4416 to 4469	3900	3000	10000	6000	6700	10000	7500	4550	3000
SP-1, 2, 3	5000 to 5048	5350	4350	10000	8000	8850	10000	10000	6150	4350
Allowance for Empty and Underloaded Cars	Less than 45 Ms	6	6	6	6	6	6	6	6	6
	45 Ms to 55 Ms	3	3	3	3	3	3	3	3	3
	More than 55 Ms	0	0	0	0	0	0	0	0	0

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

RATING OF ENGINES—In Units of 1000 Lbs. (Ms)

NOMINAL CLASS	ENGINE NUMBERS	Bowie to San Carlos	San Carlos to Cutter	Cutter to Pinal	Pinal to Globe	Globe to Miami	Miami to Globe	Globe to Pinal	Pinal to San Carlos	San Carlos to Tanque	Tanque to Bowie
DES-1, 2, 3, 4, 5, 6, 7	1000 to 1022	....	....	....	....	....	....	....	....	....	....
DES-100 to 107	1300 to 1395	....	....	....	....	....	....	....	....	....	....
E-23	1500 and 1502	2450	1200	580	5000	970	880	580	5000	2050	1550
M-4	1617 to 1713	3250	1600	830	5000	1300	1200	830	5000	2750	2100
M-6, 8	1721 to 1803, 1823 to 1825	3800	1950	990	6000	1550	1450	990	6000	3250	2500
M-9, 11	1804 to 1822, 1826 to 1831 and 1836	4000	2050	1050	6000	1650	1550	1050	6000	3450	2650
M-11	1832 to 1835	4200	2150	1100	6000	1750	1600	1100	6000	3550	2750
T-1	2242 to 2271	2750	1400	710	5000	1100	1050	710	5000	2350	1800
T-8, 9	2161, 2174 and 2178	2000	990	480	5000	790	720	480	5000	1650	1250
T-23	2301 to 2310	....	....	....	....	....	....	....	....	....	....
T-26	2283 to 2299	....	....	....	....	....	....	....	....	....	....
T-28, 31	2311 to 2362	....	....	....	....	....	....	....	....	....	....
T-32, 40	2363 to 2384	....	....	....	....	....	....	....	....	....	....
T-36	2103	2950	1500	780	5000	1250	1100	780	5000	2500	1950
T-37	2105 and 2106	3700	2250	950	6000	1500	1050	950	6000	3150	2400
T-57, 58	2385 and 2386	....	....	....	....	....	....	....	....	....	....
P-1, 3, 5	2408, 2411 to 2413, 2416 to 2418, 2423, 2425 to 2435, 2437 to 2452, 2459 and 2460	3600	1800	880	6000	1450	1300	880	6000	3050	2300
P-1	2400, 2403 to 2407 and 2415	3750	1850	920	6000	1500	1350	920	6000	3200	2450
P-4	2401, 2402, 2409, 2410, 2414, 2419, 2420, 2422, 2424 and 2436	3900	1950	970	6000	1550	1450	970	6000	3350	2550
P-6	2453, 2454 and 2458	....	....	....	....	....	....	....	....	....	....
P-7	2476 and 2477	....	....	....	....	....	....	....	....	....	....
P-8, 10	2461 to 2474, 2478 to 2483	....	....	....	....	....	....	....	....	....	....
P-8, 10	2475, 2484 to 2491	....	....	....	....	....	....	....	....	....	....
P-11	3100 to 3109	3850	1950	970	8000	1550	1400	970	8000	3300	2500
P-12	3120 to 3129	....	....	....	....	....	....	....	....	....	....
C-5, 8, 9, 10, 26 to 29	2513 to 2599, 2624 to 2860, 3440 to 3469	4900	3000	1310	8000	2000	1400	1310	8000	4170	3220
C-15, 32	2500, 2505 to 2507	3100	1600	820	5000	1300	1200	820	5000	2650	2050
C-17	2510 and 2511	3800	1950	1050	6000	1600	1500	1050	6000	3250	2500
C-18	3400 to 3409	4450	2300	1200	8000	1850	1700	1200	8000	3800	2950
C-19	3410 to 3426	4650	2400	1250	8000	1950	1800	1250	8000	3950	3050
TW-1	2900 to 2913	3700	1900	980	7000	1550	1400	980	7000	3150	2400
TW-2, 3	2932 to 2952	3200	1950	850	7000	1300	900	850	7000	2700	2100
TW-4, 6	2926 to 2931 and 2957	2800	1400	720	7000	1150	1050	720	7000	2400	1800
TW-8	2914 to 2923	4050	2100	1050	7000	1700	1550	1050	7000	3500	2650
Allowance for Empty and Underloaded Cars	Less than 45 Ms.	....	6	6	6	6	6	6	6	6	6
	45 Ms to 55 Ms	....	3	3	3	3	3	3	3	3	3
	More than 55 Ms	....	0	0	0	0	0	0	0	0	0

UNLESS AUTHORIZED BY SUPERINTENDENT, ENGINES WILL NOT BE PERMITTED TO OPERATE IN THOSE TERRITORIES WHERE NO RATING IS SHOWN IN ENGINE RATING TABLE.

TONNAGE RATING M's

Diesel Passenger Locomotives, Class DEP-4
Locomotive Nos. 6000-6004 inclusive

Los Angeles Division

Location	All 6 Power Plants Operating	5 Power Plants Operating	4 Power Plants Operating	3 Power Plants Operating
Los Angeles to Alhambra Puente to Ontario	3500	2750	2000	1300
Alhambra to Puente Ontario to Colton	6400	5200	3950	2750
Colton to Bloomington El Monte to Stoneman	3500	2750	2000	1300
Bloomington to El Monte Stoneman to Los Angeles	7500	6100	4700	3300
Colton to Indio	2200	1500	1100	--
Indio to Colton	2000	1450	950	--
Niland to Amos	5600	4500	3400	2350
Yuma to Knob	4350	3500	2600	1700
Indio to Niland Amos to Yuma Knob to Indio	7500	6100	4700	3300
Tucson Division				
Yuma to E. Yard Pembroke to Mohawk Lava to Sentinel	5600	4500	3400	2350
E. Yard to Pembroke Mohawk to Lava Sentinel to Gila Welton to Saddle 2 MW Gillespie to Phoenix	7500	6100	4700	3300
Saddle to 2 M.W.Gillespie	3500	2750	2000	1300
Gila to Kim Mohawk to Blaisdell Fortuna to Yuma Phoenix to 2 M.E.Craig 2 M.W.Gillespie to Welton	7500	6100	4700	3300

Sheet #2

Tucson Division (continued)

Location	All 6 Power Plants Operating	5 Power Plants Operating	4 Power Plants Operating	3 Power Plants Operating
Blaisdell to Fortuna 2 M.E.Craig to 2 M.W. Gillespie	6400	5200	3950	2750
Kim to Mohawk	4350	3500	2600	1700
Maricopa to Tucson Phoenix to Picacho	6400	5200	3950	2750
Gila to Estrella	3500	2750	2000	1300
Estrella to Maricopa Tucson to Maricopa Estrella to Gila Picacho to Phoenix	7500	6100	4700	3300
Maricopa to Estrella	5600	4500	3400	2350
Tucson to Mescal (#2 track)	3500	2750	2000	1300
Benson to Dragoon San Simon to Steins	2450	1900	1300	800
Mescal to Benson Dragoon to Willcox Raso to San Simon Steins to Conrad Pyra to Lordsburg	7500	6100	4700	3300
Willcox to Raso Conrad to Pyra	3500	2750	2000	1300
Lordsburg to Pyra	4350	3500	2600	1700
Pyra to Mondel Steins to San Simon Raso to 2 M.E.Cochise Dragoon to Benson Mescal to Tucson No.1	7500	6100	4700	3300
San Simon to Bowie	5600	4500	3400	2350
Bowie to Raso 2 M.E.Cochise to Dragoon	3500	2750	2000	1300
Mendell to Steins Benson to Mescal	2450	1900	1300	800

Rio Grande Division

Location	All 6 Power Plants Operating	5 Power Plants Operating	4 Power Plants Operating	3 Power Plants Operating
Tucson to Naco	3500	2750	2000	1300
Naco to Bisbee Jct.	3500	2750	2000	1300
Bisbee Jct. to Douglas Bisbee Jct. to Fairbank Mexcal to Tucson	7500	6100	4700	3300
Douglas to Bisbee Jct.	3500	2750	2000	1300
Fairbank to Mescal	7500	6100	4700	3300
Douglas to Anapra	3500	2750	2000	1300
Anapra to Douglas	3500	2750	2000	1300
Lordsburg to Wilna El Paso to Aden	5400	4300	3200	2100
Wilna to El Paso	7500	6100	4700	3300
Aden to Lordsburg	6500	5800	3800	2600
El Paso to Carrizozo	3500	2750	2000	1300
Carrizozo to El Paso	6500	5800	3800	2600
Carrizozo to Elda Santa Rosa to Tucumcari Tucumcari to Gallinas	3500	2750	2000	1300
Elda to Santa Rosa	5600	4500	3400	2350
Gallinas to Carrizozo	7500	6100	4700	3300

Above tonnage ratings are for passenger service and are based on maximum continuous motor current of 625-amperes at approximately 34 MPH. In event it is necessary to isolate one or more power plants enroute enginemen should wire ahead for helper in event weight of train exceeds tonnage shown above.

San Francisco, California
September 29, 1947.

TONNAGE RATING M's

Diesel Freight Locomotives, Class DEF-1
Locomotive No's. 6100 to 6119, Inclusive

	All 4 Power Plants Operating	3 Power Plants Operating	2 Power Plants Operating	1 Power Plant Operating
San Joaquin Division:				
Bakersfield to Mojave	4400	3050	1750	400
Mojave to Rosamond Rosamond to Lancaster	18000	13250	8550	3800
Lancaster to Saugus Saugus to Los Angeles	6000	4250	2550	800
Los Angeles to Saugus	6600	4750	2850	950
Saugus to Lancaster Mojave to Bakersfield	5000	3500	2050	550
Rosamond to Mojave	7100	5100	3100	1100
Los Angeles Division:				
Los Angeles to Alhambra Puente to Ontario	10700	7800	4900	2000
Alhambra to Puente Ontario to Colton	14700	10800	6900	3000
Colton to Bloomington El Monte to Stoneman	9850	7150	4450	1750
Bloomington to El Monte Stoneman to Los Angeles	20000	14750	9550	4300
Colton to Indio	5750	4100	2400	750
Indio to Colton	4850	3400	1950	500
Niland to Amos Yuma to Araz Jct. enroute I.C.	11750	8600	5400	2250
Yuma to Knob	11200	8150	5150	2200
Indio to Niland Amos to Yuma Knob to Indio	16700	12300	7900	3500
Los Angeles & Santa Barbara via Oxnard	12700	9300	5900	2500

	All 4 Power Plants Operating	3 Power Plants Operating	2 Power Plants Operating	1 Power Plant Operating
Tucson Division:				
Yuma to E. Yard East Yard to Pembroke Mohawk to Lava Sentinel to Gila Welton to Saddle 2 M.W. Gillespie to Phoenix Yard	15200	11150	6650	3100
Pembroke to Mohawk Lava to Sentinel	11200	8150	5150	2200
Saddle to 2MW Gillespie	9550	6950	5300	1700
Gila to Kim Mohawk to Blaisdell Fortuna to Yuma Phoenix Yard to 2 ME Crag. 2 MW Gillespie to Welton	20000	14250	9550	4300
Blaisdell to Fortuna	20000	14250	9550	4300
2ME Crag to 2 M W Gillespie	14500	10650	6800	2900
Kim to Mohawk	10350	7550	4700	1900
Maricopa to Tucson Phoenix to Picacho Jct.	18200	13400	8650	3850
Gila to Estrella	9550	6950	4300	1700
Estrella to Maricopa Tucson to Maricopa Estrella to Gila Picacho Jct. to Phoenix	20000	14750	9550	4300
Maricopa to Estrella	19000	14000	9050	4050
Tucson to Mescal (No. 2)	9650	7250	4350	1700
Benson to Dragoon San Simon to Steins	7100	5100	3100	1050
Mescal to Benson Dragoon to Willcox Raso to San Simon Steins to Conrad Pyra to Lordsburg	20000	14750	9550	4300
Willcox to Raso Conrad to Pyra	10450	7600	4750	1900

Tucson Division (Con't)	All 4 Power Plants Operating	3 Power Plants Operating	2 Power Plants Operating	1 Power Plant Operating
Lordsburg to Pyra	10550	7700	4800	1950
Pyra to Mondel Steins to San Simon Raso to 2 ME Cochise Dragoon to Benson Mescal to Tucson (No. 1)	20000	14750	9550	4300
San Simon to Bowie	11650	8500	5350	2200
Bowie to Raso 2 ME Cochise to Dragoon	9600	6950	4350	1700
Mondel to Steins	9500	6900	4300	1700
Benson to Mescal	7350	5300	3200	1150
Rio Grande Division:				
El Paso to Aden Lordsburg to Wilna	12700	9300	5900	2500
Aden to Lordsburg	13300	9750	6200	2650
El Paso to Carrizozo Tucumcari to Gallinus Carrizozo to Elda Santa Rosa to Tucumcari	8450	6100	3750	1400
Gallinus to Carrizozo Carrizozo to El Paso	16000	11750	7550	3300
Wilna to El Paso	16400	12050	7750	3400
Elda to Santa Rosa	9450	6850	4250	1650

	All 4 Power Plants Operating	3 Power Plants Operating	2 Power Plants Operating	1 Power Plant Operating
Coast Division:				
San Luis Obispo & Santa Barbara	12700	9300	5900	2500
San Luis Obispo & Santa Margarita	6000	4250	2550	800
Santa Margarita to Watsonville Jct.	20000	14750	9550	4300
Watsonville Jct. to Santa Margarita	16700	12300	7900	3500

WHEN USING STEAM HELPERS WITH THE ABOVE DIESEL RATINGS, TIMETABLE TONNAGE RATING OF HELPER MUST BE REDUCED 200 M's TO INSURE MAKING SPEED OF 15 MPH.

Office of Genl. Supt. Motive Power
San Francisco, Calif., November 22, 1947

DIVISION MILEAGE

Main Line

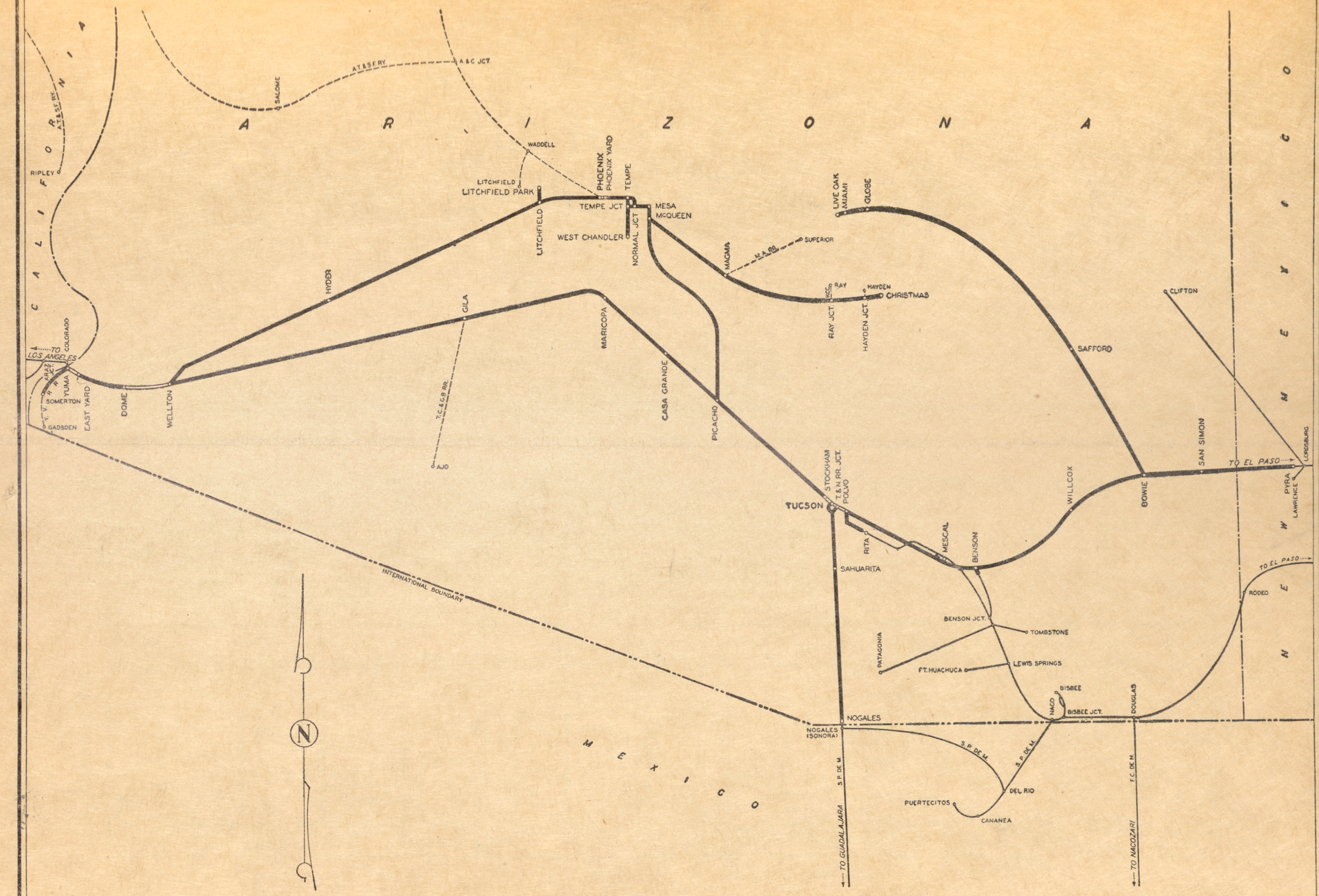
Yuma to Lordsburg	SPRR			412.58	
Wellton to Picacho, via Phoenix	AERR		195.88		
	SPCo		13.10		
	SPRR		.03	209.01	
Total Main Lines					621.59

Branches

Benson-Fairbank	SPRR	At Benson	.29		
	EP&SWRR	At Benson	.33	.62	
Christmas	AERR	McQueen to Christmas	86.66		
	KCC	Hayden Jct. to Hayden	.32	86.98	
Creamery	AERR	Tempe to Normal Jct.		2.19	
Globe	AERR	Bowie to Live Oak		136.14	
Litchfield	AERR	Litchfield to Litchfield Park		4.92	
Nogales	SPRR	Tucson to Nogales		65.79	
Tempe	AERR	Tempe Jct. to West Chandler		7.82	
Yuma Valley	YVRR	Yuma to Somerton		15.00	
Total Branches					319.46
Total Tucson Division					941.05

SPEED TABLE

TIME PER MILE	MILES PER HOUR
36″	100
37″	97.3
38″	94.7
39″	92.3
40″	90
41″	87.8
42″	85.7
43″	83.7
44″	81.8
45″	80
46″	78.3
47″	76.6
48″	75
49″	73.5
50″	72
51″	70.6
52″	69.2
53″	67.9
54″	66.6
55″	65.4
56″	64.2
57″	63.1
58″	62
59″	61
1′00″	60
1′01″	59
1′02″	58
1′03″	57.1
1′04″	56.2
1′05″	55.3
1′06″	54.5
1′07″	53.7
1′08″	52.9
1′09″	52.1
1′10″	51.4
1′11″	50.7
1′12″	50
1′13″	49.3
1′14″	48.6
1′15″	48
1′16″	47.3
1′17″	46.7
1′18″	46
1′19″	45.5
1′20″	45
1′25″	42.3
1′30″	40
1′35″	37.9
1′40″	36
1′45″	34.3
1′50″	32.7
1′55″	31.3
2′00″	30
2′15″	26.6
2′30″	24
2′45″	21.8
3′00″	20
3′30″	17.1
4′00″	15
5′00″	12
6′00″	10
7′00″	8.6
7′30″	8
8′00″	7.5
10′00″	6


CALIFORNIA
ARIZONA
NEW MEXICO
MEXICO
RIPLEY
A.T.&S.F.RY.
SALOME
A.&C. JCT.
WADDELL
LITCHFIELD
LITCHFIELD PARK
PHOENIX
PHOENIX YARD
TEMPE
TEMPE JCT
MESA
MCQUEEN
WEST CHANDLER
NORMAL JCT
LITCHFIELD
HYDER
GILA
MARICOPA
CASA GRANDE
PICACHO
T.C.&G.B.RR.
AJO
TO LOS ANGELES
COLORADO
ARAZ JCT.
Y.V.R.R.
YUMA
SOMERTON
GADSDEN
EAST YARD
DOME
WELLTON
MAGMA
M.A.RR.
SUPERIOR
RAY
R.C.C.
RAY JCT.
HAYDEN
HAYDEN JCT.
CHRISTMAS
LIVE OAK
MIAMI
GLOBE
SAFFORD
CLIFTON
SAN SIMON
TO EL PASO
LORDSBURG
PYRA
LAWRENCE
BOWIE
WILLCOX
STOCKHAM
T.&N.RR.JCT.
POLVO
TUCSON
RITA
SAHUARITA
MESCAL
BENSON
BENSON JCT.
TOMBSTONE
PATAGONIA
LEWIS SPRINGS
FT. HUACHUCA
BISBEE
NACO
BISBEE JCT.
DOUGLAS
RODEO
TO EL PASO
INTERNATIONAL BOUNDARY
NOGALES
NOGALES (SONORA)
S.P. DE M.
TO GUADALAJARA
S.P. DE M.
S.P. DE M.
DEL RIO
PUERTECITOS
CANANEA
F.C. DE N.
TO NACOZARI
N

TUCSON DIVISION